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AWS CERTIFIED CLOUD PRACTITIONER 2020 CLF-C01

390 TOP-NOTCH QUESTIONS

**THE LATEST CLF-C01 CERTIFICATION
BLUEPRINT**

**SIMULATES THE ACTUAL EXAM
ENVIRONMENT AND THE LATEST AWS
CERTIFIED CLOUD PRACTITIONER
CERTIFICATION EXAM**

T H O M A S H O W E L L

AWS CERTIFIED
CLOUD
PRACTITIONER
(CLF-C01)

390 TOP-NOTCH QUESTIONS
THE LATEST CLF-C01 CERTIFICATION BLUEPRINT

THOMAS HOWELL

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INTRODUCTION

The AWS Certified Cloud Practitioner (CLF-C01) examination is intended for individuals who have the knowledge, skills, and abilities to demonstrate basic knowledge of the AWS platform, including: available services and their common use cases, AWS Cloud architectural principles (at the conceptual level), account security, and compliance.

The candidate will demonstrate an understanding of AWS Cloud economics including: costs, billing, and analysis, and the value proposition of the AWS Cloud.

It validates an examinee's ability to:

- a) Explain the value of the AWS Cloud.
- b) Understand and explain the AWS shared responsibility model.
- c) Understand AWS Cloud security best practices.
- d) Understand AWS Cloud costs, economics, and billing practices.
- e) Describe and position the core AWS services, including compute, network, databases, and storage.
- f) Identify AWS services for common use cases.

Recommended AWS Knowledge

It is recommended that candidates have at least 6 months of experience with the AWS Cloud in any role, including traditional and non-traditional students, educators, and individuals exploring the AWS Cloud, including project managers, IT managers, sales managers, decision makers, and marketers, as well as those working in finance, procurement, and legal departments.

Recommended General IT Knowledge

Candidates should have a basic understanding of IT services and their uses in the AWS Cloud platform.

EXAM CONTENT

Response Types

There are two types of questions on the examination:

- a) Multiple choice: Has one correct response and three incorrect responses (distractors).
- b) Multiple response: Has two or more correct responses out of five or more options.

Select one or more responses that best complete the statement or answer the question. Distractors, or incorrect answers, are response options that an examinee with incomplete knowledge or skill would likely choose. However, they are generally plausible responses that fit in the content area defined by the test objective. Unanswered questions are scored as incorrect; there is no penalty for guessing..

Unscored Content

Your examination may include unscored items that are placed on the test to gather statistical information. These items are not identified on the form and do not affect your score.

Exam Results

The AWS Certified Cloud Practitioner (CLF-C01) examination is a pass or fail exam. The examination is scored against a minimum standard established by AWS professionals who are guided by certification industry best practices and guidelines. Your results for the examination are reported as a score from 100–1,000, with a minimum passing score of 700. Your score shows how you performed on the examination as a whole and whether or not you passed. Scaled scoring models are used to equate scores across multiple exam forms that may have slightly different difficulty levels. Your score report contains a table of classifications of your performance at each section level. This information is designed to provide general feedback concerning your examination performance. The examination uses a compensatory scoring model, which means that you do not need to “pass”

the individual sections, only the overall examination. Each section of the examination has a specific weighting, so some sections have more questions than others. The table contains general information, highlighting your strengths and weaknesses. Exercise caution when interpreting section-level feedback.

Content Outline

This exam guide includes weightings, test domains, and objectives only. It is not a comprehensive listing of the content on this examination. The table below lists the main content domains and their weightings.

Domain 1: Cloud Concepts 26%

Domain 2: Security and Compliance 25%

Domain 3: Technology 33%

Domain 4: Billing and Pricing 16%

TOTAL 100%

Domain 1: Cloud Concepts

- 1.1 Define the AWS Cloud and its value proposition
- 1.2 Identify aspects of AWS Cloud economics
- 1.3 List the different cloud architecture design principles

Domain 2: Security and Compliance

- 2.1 Define the AWS shared responsibility model
- 2.2 Define AWS Cloud security and compliance concepts
- 2.3 Identify AWS access management capabilities
- 2.4 Identify resources for security support

Domain 3: Technology

- 3.1 Define methods of deploying and operating in the AWS Cloud
- 3.2 Define the AWS global infrastructure
- 3.3 Identify the core AWS services
- 3.4 Identify resources for technology support

Domain 4: Billing and Pricing

4.1 Compare and contrast the various pricing models for AWS

4.2 Recognize the various account structures in relation to AWS billing and pricing

4.3 Identify resources available for billing support

AWS CERTIFIED CLOUD PRACTITIONER

TEST1

AWS CERTIFIED CLOUD PRACTITIONER:

TEST 1

Question 1:

Which items can be configured from within the VPC management console?
(Select TWO.)

1. Regions
2. Load Balancing
3. Security Groups
4. Subnets
5. Auto Scaling

Correct Answer(s): 3, 4

Explanation:

Subnets and Security groups can be configured from within the VPC console.

CORRECT: "Subnets" is the correct answer.

CORRECT: "Security Groups" is the correct answer.

INCORRECT: "Regions" is incorrect. Regions are not configured, resources within regions are configured.

INCORRECT: "Load Balancing" is incorrect. Load balancing is configured from the EC2 console.

INCORRECT: "Auto Scaling" is incorrect. Auto scaling is configured from the EC2 console.

References:

<https://aws.amazon.com/vpc/>

Question 2:

Which benefit of the AWS Cloud eliminates the need for users to try estimating future infrastructure usage?

1. Economies of scale
2. Easy global deployments
3. Security of the AWS Cloud
4. Elasticity of the AWS Cloud

Correct Answer(s): 4

Explanation:

Elasticity means that your infrastructure scales based on actual usage. When you have higher demand you use more infrastructure and pay more and when you have less demand you need less infrastructure and pay less. The benefits are you don't need to guess about capacity and pay only for what you actually need.

CORRECT: "Elasticity of the AWS Cloud" is the correct answer.

INCORRECT: "Easy global deployments" is incorrect. It is easy to deploy many AWS resources globally but this benefit does not eliminate the need to estimate future usage.

INCORRECT: "Security of the AWS Cloud" is incorrect. The security of the AWS Cloud is important but does not eliminate the need to estimate future usage.

INCORRECT: "Economies of scale" is incorrect. This means you pay less for some resources because of the benefits of AWS's scale. However, this benefit does not eliminate the need to estimate future usage.

References:

<https://wa.aws.amazon.com/wat.concept.elasticity.en.html>

Question 3:

Which AWS support plan should you use if you need a response time of < 15 minutes for a business-critical system failure?

1. Basic

2. Developer
3. Business
4. Enterprise

Correct Answer(s): 4

Explanation:

Only the Enterprise plan provides a response time of < 15 minutes for the failure of a business-critical system.

Both Business and Enterprise offer < 1 hour response time for the failure of a production system.

CORRECT: "Enterprise" is the correct answer.

INCORRECT: "Business" is incorrect as described above.

INCORRECT: "Basic" is incorrect as described above.

INCORRECT: "Developer" is incorrect as described above.

References:

<https://aws.amazon.com/premiumsupport/plans/>

Question 4:

Which of the following is a principle of good AWS Cloud architecture design?

1. Implement loose coupling
2. Implement vertical scaling
3. Implement single points of failure
4. Implement monolithic design

Correct Answer(s): 1

Explanation:

As application complexity increases, a desirable attribute of an IT system is that it can be broken into smaller, loosely coupled components.

This means that IT systems should be designed in a way that reduces interdependencies—a change or a failure in one component should not cascade to other components.

CORRECT: "Implement loose coupling" is the correct answer.

INCORRECT: "Implement single points of failure" is incorrect. Single points of failure should be eliminated where possible to avoid system/application outages.

INCORRECT: "Implement monolithic design" is incorrect. Monolithic design is when multiple components are tightly coupled and this increases the impact of a system failure.

INCORRECT: "Implement vertical scaling" is incorrect. Vertical scaling means adding resources such as CPU and memory to an existing application or instance. Where possible horizontal scaling should be used with loose coupling.

References:

https://d1.awsstatic.com/whitepapers/AWS_Cloud_Best_Practices.pdf

Question 5:

Which of the following are features of Amazon CloudWatch? (Select TWO.)

1. It can be used to gain system-wide visibility into resource utilization
2. It provides visibility into user activity by recording actions taken on your account
3. It records account activity and service events from most AWS services
4. It is used for auditing of API calls
5. It can be accessed via API, command-line interface, AWS SDKs, and the AWS Management Console

Correct Answer(s): 1, 5

Explanation:

Amazon CloudWatch is a monitoring service for AWS cloud resources and the applications you run on AWS. CloudWatch is for performance

monitoring whereas CloudTrail is for auditing. CloudWatch is used to collect and track metrics, collect and monitor log files, and set alarms.

CORRECT: "It is used to gain system-wide visibility into resource utilization" is a correct answer.

CORRECT: "It can be accessed via API, command-line interface, AWS SDKs, and the AWS Management Console" is also a correct answer.

INCORRECT: "It records account activity and service events from most AWS services" is incorrect as this describes AWS CloudTrail.

INCORRECT: "It is used for auditing of API calls" is incorrect as this describes AWS CloudTrail.

INCORRECT: "It provides visibility into user activity by recording actions taken on your account" is incorrect as this describes AWS CloudTrail.

References:

<https://aws.amazon.com/cloudwatch/>

Question 6:

What benefits are provided by Amazon CloudFront? (Select TWO.)

1. Provides a worldwide distributed DNS service
2. Used to enable private subnet instances to access the Internet
3. Allows you to register domain names
4. Built-in Distributed Denial of Service (DDoS) attack protection
5. Content is cached at Edge Locations for fast distribution to customers

Correct Answer(s): 4, 5

Explanation:

CloudFront is a content delivery network (CDN) that allows you to store (cache) your content at “edge locations” located around the world. This allows customers to access content more quickly and provides security against DDoS attacks. CloudFront can be used for data, videos, applications, and APIs.

Benefits include:

- Cache content at Edge Location for fast distribution to customers.
- Built-in Distributed Denial of Service (DDoS) attack protection.
- Integrates with many AWS services (S3, EC2, ELB, Route 53, Lambda).

CORRECT: "Built-in Distributed Denial of Service (DDoS) attack protection" is a correct answer.

CORRECT: "Content is cached at Edge Locations for fast distribution to customers" is a correct answer.

INCORRECT: "Allows you to register domain names" is incorrect. Amazon Route 53 can be used for registering domain names.

INCORRECT: "Used to enable private subnet instances to access the Internet" is incorrect

INCORRECT: "Provides a worldwide distributed DNS service" is incorrect. Amazon Route 53 provides a worldwide distributed DNS service.

References:

<https://aws.amazon.com/cloudfront/>

Question 7:

Which of the following statements is correct in relation to consolidated billing? (Select TWO.)

1. Volume pricing discounts cannot be applied to resources
2. Paying accounts are independent and cannot access resources of other accounts
3. Only available to Enterprise customers
4. One bill is provided per AWS organization
5. Used to consolidate billing across organizations

Correct Answer(s): 2, 4

Explanation:

AWS organizations allow you to consolidate multiple AWS accounts into an organization that you create and centrally manage. Each paying account is an

independent entity and is not able to access resources of other accounts in the Organization. The billing is performed centrally on the root account in the AWS Organization.

CORRECT: "Paying accounts are independent and cannot access resources of other accounts" is a correct answer.

CORRECT: "One bill is provided per AWS organization" is also a correct answer.

INCORRECT: "Used to consolidate billing across organizations" is incorrect. AWS Organizations allows you to consolidate billing across accounts within an organization but not across organizations.

INCORRECT: "Volume pricing discounts cannot be applied to resources" is incorrect. This is not true, volume pricing discounts can be applied to resources and this is a key advantage.

INCORRECT: "Only available to Enterprise customers" is incorrect. This is not true, consolidated billing is available to all customers.

References:

<https://docs.aws.amazon.com/awsaccountbilling/latest/aboutv2/consolidated-billing.html>

Question 8:

Under the shared responsibility model, what are examples of shared controls? (Select TWO.)

1. Storage system patching
2. Physical and environmental
3. Patch management
4. Service and Communications Protection
5. Configuration management

Correct Answer(s): 3, 5

Explanation:

Shared Controls– Controls which apply to both the infrastructure layer and customer layers, but in completely separate contexts or perspectives

Patch Management– AWS is responsible for patching and fixing flaws within the infrastructure, but customers are responsible for patching their guest OS and applications

Configuration Management– AWS maintains the configuration of its infrastructure devices, but a customer is responsible for configuring their own guest operating systems, databases, and applications.

CORRECT: "Patch management" is a correct answer.

CORRECT: "Configuration management" is also a correct answer.

INCORRECT: "Storage system patching" is incorrect. Storage system patching is an AWS responsibility.

INCORRECT: "Physical and environmental" is incorrect. Physical and Environmental controls is an example of an inherited control (a customer fully inherits from AWS).

INCORRECT: "Service and Communications Protection" is incorrect. Service and Communications Protection is an example of a customer specific control.

References:

<https://aws.amazon.com/compliance/shared-responsibility-model/>

Question 9:

Which feature of AWS allows you to deploy a new application for which the requirements may change over time?

1. Elasticity
2. Fault tolerance
3. High availability
4. Disposable resources

Correct Answer(s): 1

Explanation:

Elasticity allows you to deploy your application without worrying about whether it will need more or less resources in the future. With elasticity, the infrastructure can scale on-demand and you only pay for what you use.

CORRECT: "Elasticity" is the correct answer.

INCORRECT: "Fault tolerance" is incorrect. Fault tolerance is a mechanism used for ensuring the availability or recoverability of your application in the of a hardware or software fault.

INCORRECT: "Disposable resources" is incorrect. Disposable resources is an architectural principle in which servers and other components are treated as temporary resources and are replaced rather than updated

INCORRECT: "High availability" is incorrect. High availability is a mechanism used for ensuring the availability of your application and protecting against the failure of hardware or software components.

References:

<https://aws.amazon.com/training/course-descriptions/architect/>

Question 10:

Under the AWS shared responsibility model, what are the customer's responsibilities? (Select TWO.)

1. Physical network devices including firewalls
2. Physical and environmental security
3. Security of data in transit
4. Data integrity authentication
5. Storage device decommissioning

Correct Answer(s): 3, 4

Explanation:

Under the AWS shared responsibility model, AWS are responsible for security "of" the cloud and customers are responsible for security "in" the cloud. Securing data in transit and ensuring the integrity of data are customer responsibilities. Customers are always responsible for managing data including encryption.

CORRECT: "Security of data in transit" is a correct answer.

CORRECT: "Data integrity authentication" is also a correct answer.

INCORRECT: "Physical and environmental security" is incorrect as this is security "of" the cloud and therefore the responsibility of AWS.

INCORRECT: "Physical network devices including firewalls" is incorrect as this is security "of" the cloud and therefore the responsibility of AWS.

INCORRECT: "Storage device decommissioning" is incorrect as this is security "of" the cloud and therefore the responsibility of AWS.

References:

<https://aws.amazon.com/compliance/shared-responsibility-model/>

Question 11:

Which of the statements below is accurate regarding Amazon S3 buckets? (Select TWO.)

1. Bucket names must be unique regionally
2. Bucket names must be unique globally
3. Buckets are replicated globally
4. Buckets are region-specific
5. Buckets can contain other buckets

Correct Answer(s): 2, 4

Explanation:

Amazon S3 uses a universal (global) namespace, which means bucket names must be unique globally. However, you create the buckets in a region and the data never leaves that region unless explicitly configured to do so through cross-region replication (CRR).

CORRECT: "Bucket names must be unique globally" is a correct answer.

CORRECT: "Buckets are region-specific" is also a correct answer.

INCORRECT: "Bucket names must be unique regionally" is incorrect as they must be globally unique.

INCORRECT: "Buckets are replicated globally" is incorrect. Objects within a bucket are replicated within a region across multiple AZs (except for the One-Zone IA class).

INCORRECT: "Buckets can contain other buckets" is incorrect. You cannot create nested buckets.

References:

<https://docs.aws.amazon.com/AmazonS3/latest/dev/UsingBucket.html>

Question 12:

The AWS global infrastructure is composed of? (Select TWO.)

1. Clusters
2. IP Subnets
3. Fault Zones
4. Availability Zones
5. Regions

Correct Answer(s): 4, 5

Explanation:

The AWS Global infrastructure is built around Regions and Availability Zones (AZs). A Region is a physical location in the world where AWS have multiple AZs. AZs consist of one or more discrete data centers, each with redundant power, networking, and connectivity, housed in separate facilities

CORRECT: "Regions" is a correct answer.

CORRECT: "Availability Zones" is also a correct answer.

INCORRECT: "Clusters" is incorrect as this is not part of the AWS global infrastructure.

INCORRECT: "Fault Zones" is incorrect as this is not part of the AWS global infrastructure.

INCORRECT: "IP subnets" is incorrect as this is not part of the AWS global infrastructure.

References:

<https://aws.amazon.com/about-aws/global-infrastructure/>

Question 13:

A company stores copies of backups on Amazon S3 and requires rapid access but low resiliency. Which storage class is optimized for these requirements?

1. Amazon S3 Glacier
2. Amazon S3 One Zone-Infrequent Access
3. Amazon S3 Standard
4. Amazon S3 Glacier Deep Archive

Correct Answer(s): 2

Explanation:

S3 One Zone-IA is for data that is accessed less frequently, but requires rapid access when needed. Unlike other S3 Storage Classes which store data in a minimum of three Availability Zones (AZs), S3 One Zone-IA stores data in a single AZ and costs 20% less than S3 Standard-IA.

S3 One Zone-IA is ideal for customers who want a lower-cost option for infrequently accessed data but do not require the availability and resilience of S3 Standard or S3 Standard-IA.

It's a good choice for storing secondary backup copies of on-premises data or easily re-creatable data. You can also use it as cost-effective storage for data that is replicated from another AWS Region using S3 Cross-Region Replication.

CORRECT: "Amazon S3 One Zone-Infrequent Access" is the correct answer.

INCORRECT: "Amazon S3 Standard" is incorrect as this is a more resilient storage class and will cost more so it not optimized for these requirements.

INCORRECT: "Amazon S3 Glacier Deep Archive" is incorrect. This storage class is suited to archival and takes several hours to restore data.

INCORRECT: "Amazon S3 Glacier" is incorrect. This storage class is suited to archival and takes minutes to hours to restore data.

References:

<https://aws.amazon.com/s3/storage-classes/>

Question 14:

What is the term for describing the action of automatically running scripts on Amazon EC2 instances when launched to install software?

1. Workflow Automation
2. Bootstrapping
3. Golden Images
4. Containerization

Correct Answer(s): 2

Explanation:

Bootstrapping is the execution of automated actions to services such as EC2 and RDS. This is typically in the form of scripts that run when the instances are launched.

CORRECT: "Bootstrapping" is the correct answer.

INCORRECT: "Golden Images" is incorrect. Golden Images are snapshots of pre-configured EBS volumes that can be used to launch new instances. You do this using Amazon Machine Images (AMIs).

INCORRECT: "Containerization" is incorrect. Containers are packaged software that runs in a Docker image. Services such as Amazon ECS and Fargate can run Docker containers.

INCORRECT: "Workflow automation" is incorrect. Workflow automation is a process or orchestrating automated actions. This is associated with services such as Chef and Puppet or AWS OpsWorks.

References:

https://d1.awsstatic.com/whitepapers/AWS_Cloud_Best_Practices.pdf

Question 15:

How does AWS assist organisations' with their capacity requirements?

1. You don't own the infrastructure
2. You don't need to guess your capacity needs
3. With AWS you don't pay for data centres
4. With AWS you only pay for what you use

Correct Answer(s): 2

Explanation:

All of these statements are true; however, the question is specifically asking how AWS can assist with capacity requirements.

i.e. how does AWS enable organizations to ensure they don't over or under-provision their resources.

The ability to scale on demand is the key advantage that can help them here as they can deploy what they know they need today and scale it as they need to tomorrow.

References:

<https://d1.awsstatic.com/whitepapers/aws-overview.pdf>

Question 16:

Which service can be used for building and integrating loosely-coupled, distributed applications?

1. Amazon EFS
2. Amazon RDS
3. Amazon EBS
4. Amazon SNS

Correct Answer(s): 4

Explanation:

Amazon Simple Notification Service (Amazon SNS) is a web service that makes it easy to set up, operate, and send notifications from the cloud. Amazon SNS is used for building and integrating loosely-coupled, distributed applications.

NOTE: Sometimes AWS will expand abbreviations in answers and other times, like with this question, you just get the abbreviation. Therefore, there's no workaround, you have to know your abbreviations!

CORRECT: "Amazon SNS" is the correct answer.

INCORRECT: "Amazon EBS" is incorrect. Amazon Elastic Block Storage (EBS) provides storage volumes for EC2 instances.

INCORRECT: "Amazon EFS" is incorrect. Amazon Elastic File System (EFS) provides an NFS filesystem for usage by EC2 instances.

INCORRECT: "Amazon RDS" is incorrect. Amazon Relational Database Service (RDS) provides a managed relational database service.

References:

<https://aws.amazon.com/sns/>

Question 17:

Which AWS service allows you to connect to storage from on-premise servers using standard file protocols?

1. Amazon Glacier
2. Amazon EFS
3. Amazon EBS
4. Amazon S3

Correct Answer(s): 2

Explanation:

EFS is a fully-managed service that makes it easy to set up and scale file storage in the Amazon Cloud. EFS filesystems are mounted using the NFS protocol (which is a file-level protocol).

Access to EFS file systems from on-premises servers can be enabled via Direct Connect or AWS VPN.

You mount an EFS file system on your on-premises Linux server using the standard Linux mount command for mounting a file system via the NFSv4.1 or NFSv5 protocol.

CORRECT: "Amazon EFS" is the correct answer.

INCORRECT: "Amazon S3" is incorrect. Amazon S3 is an object-level not file-level storage system.

INCORRECT: "Amazon EBS" is incorrect. Amazon Elastic Block Storage (EBS) is block-level storage that can only be accessed by EC2 instances from the same AZ as the EBS volume.

INCORRECT: "Amazon Glacier" is incorrect. Amazon Glacier is an archiving solution that is accessed through S3.

References:

<https://aws.amazon.com/efs/>

Question 18:

What is the most cost-effective EC2 pricing option to use for a non-critical overnight workload?

1. Spot
2. Dedicated Host
3. Reserved Instance
4. On-Demand

Correct Answer(s): 1

Explanation:

Spot instances are good for short term requirements as they can be very economical. However, sometimes AWS may terminate your instance when they need the capacity back. This is a good option for non-critical workloads that can be terminated without loss of data.

CORRECT: "Spot" is the correct answer.

INCORRECT: "On-Demand" is incorrect. On-Demand is not the most economical option

INCORRECT: "Reserved Instance" is incorrect. Reserved instances are good for long-term, static requirements as you must lock-in for 1 or 3 years in return for a decent discount

INCORRECT: "Dedicated Host" is incorrect. Dedicated hosts provide a full server dedicated to a single customer and is therefore expensive

References:

<https://aws.amazon.com/ec2/pricing/>

Question 19:

Which service allows you to run code as functions without needing to provision or manage servers?

1. AWS Lambda
2. Amazon EC2
3. AWS CodeDeploy
4. Amazon EKS

Correct Answer(s): 1

Explanation:

AWS Lambda is a serverless compute service that runs your code in response to events and automatically manages the underlying compute resources for you.

Lambda runs your code on high-availability compute infrastructure and performs all the administration of the compute resources, including server and operating system maintenance, capacity provisioning and automatic scaling, code and security patch deployment, and code monitoring and logging. All you need to do is supply the code.

CORRECT: "AWS Lambda" is the correct answer.

INCORRECT: "Amazon EC2" is incorrect. With Amazon EC2 you must manage the instance and operating system.

INCORRECT: "AWS CodeDeploy" is incorrect. AWS CodeDeploy is a fully managed deployment service that automates software deployments to a variety of compute services such as Amazon EC2, AWS Lambda, and your on-premises servers.

INCORRECT: "Amazon EKS" is incorrect. Amazon Elastic Container Service for Kubernetes (Amazon EKS) is a managed service that makes it easy for you to run Kubernetes on AWS without needing to stand up or maintain your own Kubernetes control plane

References:

<https://aws.amazon.com/lambda/features/>

Question 20:

When instantiating compute resources, what are two techniques for using automated, repeatable processes that are fast and avoid human error? (Select TWO.)

1. Performance monitoring
2. Fault tolerance
3. Snapshotting
4. Infrastructure as code
5. Bootstrapping

Correct Answer(s): 4, 5

Explanation:

With infrastructure as code AWS assets are programmable, so you can apply techniques, practices, and tools from software development to make your whole infrastructure reusable, maintainable, extensible, and testable.

With bootstrapping you can execute automated actions to modify default configurations. This includes scripts that install software or copy data to bring that resource to a particular state.

CORRECT: "Bootstrapping" is a correct answer.

CORRECT: "Infrastructure as code" is also a correct answer.

INCORRECT: "Snapshotting" is incorrect. Snapshotting is about saving data, not instantiating resources.

INCORRECT: "Fault tolerance" is incorrect. Fault tolerance is a method of increasing the availability of your system when components fail.

INCORRECT: "Performance monitoring" is incorrect. Performance monitoring has nothing to do with instantiating resources.

References:

<https://aws.amazon.com/training/course-descriptions/architect/>

Question 21:

Which service supports the resolution of public domain names to IP addresses or AWS resources?

1. Hosted Zones
2. Amazon Route 53
3. Amazon SNS
4. Amazon CloudFront

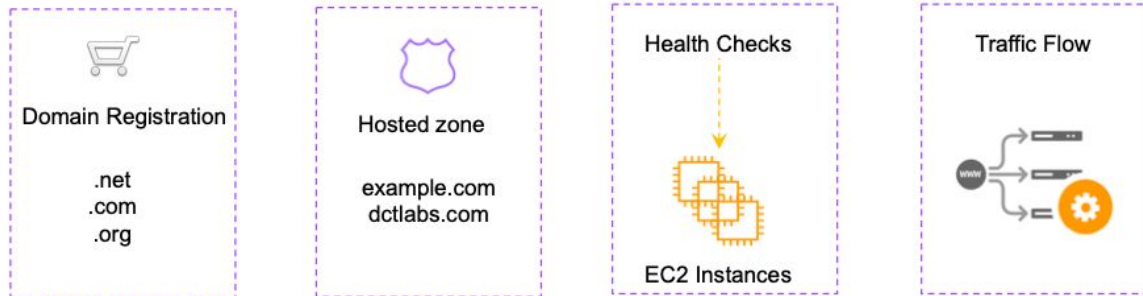
Correct Answer(s): 2

Explanation:

Amazon Route 53 is a highly available and scalable Domain Name System (DNS) service using hosted zones. It can also be used for domain registration, health checks, and traffic flow.



Amazon Route 53



CORRECT: "Amazon Route 53" is the correct answer.

INCORRECT: "Amazon CloudFront" is incorrect. CloudFront is a content delivery network (CDN) that allows you to store (cache) your content at “edge locations” located around the world

INCORRECT: "Amazon SNS" is incorrect. Simple Notification Service is used to send notifications over multiple transport protocols.

INCORRECT: "Hosted Zones" is incorrect. A hosted zone is a collection of records for a specified domain in Route 53.

References:

<https://aws.amazon.com/route53/>

Question 22:

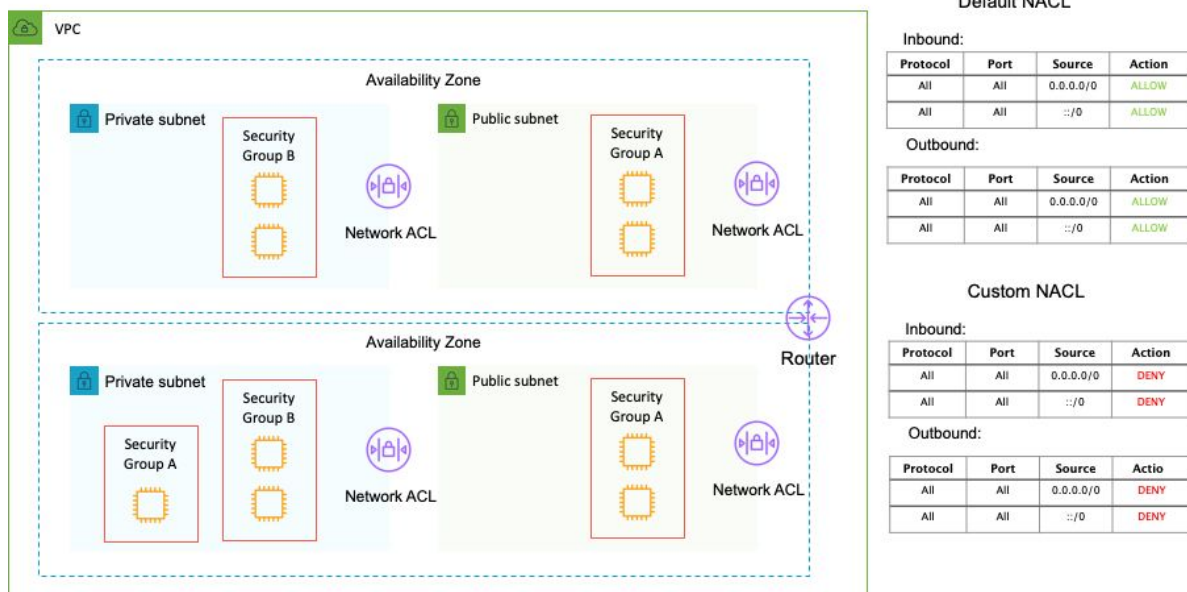
Which statement below is incorrect in relation to Network ACLs?

1. They are stateless
2. They operate at the Availability Zone level
3. They process rules in order
4. They support allow and deny rules

Correct Answer(s): 2

Explanation:

A network access control list (ACL) is an optional layer of security for your VPC that acts as a firewall for controlling traffic in and out of one or more subnets. Network ACLs operate at the subnet level not at the availability zone level.



CORRECT: "They operate at the Availability Zone level" is the correct answer.

INCORRECT: "They support allow and deny rules" is incorrect as this statement is true.

INCORRECT: "They are stateless" is incorrect as this statement is true.

INCORRECT: "They process rules in order" is incorrect as this statement is true.

References:

<https://docs.aws.amazon.com/vpc/latest/userguide/vpc-network-acls.html>

Question 23:

What strategy can assist with allocating metadata to AWS resources for cost tracking and visibility?

1. Access Control
2. Categorizing

3. Labelling
4. Tagging

Correct Answer(s): 4

Explanation:

AWS allows customers to assign metadata to their AWS resources in the form of tags. Each tag is a simple label consisting of a customer-defined key and an optional value that can make it easier to manage, search for, and filter resources. AWS Cost Explorer and detailed billing reports support the ability to break down AWS costs by tag.

The other options are incorrect as they are not methods of adding metadata to an AWS resource.

CORRECT: "Tagging" is the correct answer.

INCORRECT: "Labelling" is incorrect as explained above.

INCORRECT: "Access Control" is incorrect as explained above.

INCORRECT: "Categorizing" is incorrect as explained above.

References:

<https://aws.amazon.com/answers/account-management/aws-tagging-strategies/>

Question 24:

What is the scope of a VPC within a region?

1. Spans all Availability Zones within the region
2. Spans all Availability Zones globally
3. At least 2 subnets per region
4. At least 2 data centers per region

Correct Answer(s): 1

Explanation:

An Amazon Virtual Private Cloud (VPC) spans all availability zones within a region.

CORRECT: "Spans all Availability Zones within the region" is the correct answer.

INCORRECT: "Spans all Availability Zones globally" is incorrect. VPCs do not span regions, you create VPCs in each region.

INCORRECT: "At least 2 subnets per region" is incorrect. VPCs are not limited by subnets, subnets are created within AZs and you can have many subnets in an AZ

INCORRECT: "At least 2 data centers per region" is incorrect. An AZ uses one or more data centers. AWS does not publicize the details.

References:

<https://aws.amazon.com/vpc/>

Question 25:

Which AWS service is primarily used for software version control?

1. AWS CodeDeploy
2. AWS Cloud9
3. AWS CodeStar
4. AWS CodeCommit

Correct Answer(s): 4

Explanation:

AWS CodeCommit is a fully-managed source control service that hosts secure Git-based repositories. It makes it easy for teams to collaborate on code in a secure and highly scalable ecosystem.

CORRECT: "AWS CodeCommit" is the correct answer.

INCORRECT: "AWS CodeStar" is incorrect. AWS CodeStar enables you to quickly develop, build, and deploy applications on AWS. AWS CodeStar provides a unified user interface, enabling you to easily manage your software development activities in one place.

INCORRECT: "AWS Cloud9" is incorrect. AWS Cloud9 is a cloud-based integrated development environment (IDE) that lets you write, run, and debug your code with just a browser.

INCORRECT: "AWS CodeDeploy" is incorrect. AWS CodeDeploy is a deployment service that automates application deployments to Amazon EC2 instances, on-premises instances, or serverless Lambda functions.

References:

<https://aws.amazon.com/codecommit/>

<https://aws.amazon.com/codestar/>

<https://aws.amazon.com/cloud9/>

<https://docs.aws.amazon.com/codedeploy/latest/userguide/welcome.html>

Question 26:

What benefits does Amazon EC2 provide over using non-cloud servers? (Select TWO.)

1. Complete control of the hypervisor layer
2. Fault tolerance
3. High-availability with an SLA of 99.999%
4. Inexpensive
5. Elastic web-scale computing

Correct Answer(s): 4, 5

Explanation:

Elastic Web-Scale computing– you can increase or decrease capacity within minutes not hours and commission one to thousands of instances simultaneously.

Inexpensive – Amazon passes on the financial benefits of scale by charging very low rates and on a capacity consumed basis.

CORRECT: "Elastic web-scale computing" is a correct answer.

CORRECT: "Inexpensive" is also a correct answer.

INCORRECT: "Fault tolerance" is incorrect. Amazon does not offer fault tolerance for EC2, you need to design this into your application stack (and assume things will fail)

INCORRECT: "High-availability with an SLA of 99.999%" is incorrect. AWS provide an SLA for EC2 that states that services will be available within each AWS region with a Monthly Uptime Percentage of at least 99.99%

INCORRECT: "Complete control of the hypervisor layer" is incorrect. Amazon EC2 does not provide any control of the hypervisor or underlying hardware infrastructure.

References:

<https://docs.aws.amazon.com/whitepapers/latest/aws-overview/six-advantages-of-cloud-computing.html>

Question 27:

Which service allows you to automatically expand and shrink your application in response to demand?

1. Amazon EC2 Auto Scaling
2. Amazon DynamoDB
3. AWS ElastiCache
4. Amazon Elastic Load Balancing

Correct Answer(s): 1

Explanation:

Amazon EC2 Auto Scaling automatically responds to demand by adding or removing EC2 instances to ensure the right amount of compute capacity is available at any time. This can help to automatically adjust the number of instances based on the load on your application.

CORRECT: "Amazon EC2 Auto Scaling" is the correct answer.

INCORRECT: "AWS ElastiCache" is incorrect. AWS ElastiCache provides in-memory cache and database services

INCORRECT: "Amazon Elastic Load Balancing" is incorrect. Amazon ELB distributes incoming requests to EC2 instances. It can be used in conjunction with Auto Scaling

INCORRECT: "Amazon DynamoDB" is incorrect. DynamoDB is a non-relational (NoSQL)

References:

<https://aws.amazon.com/ec2/autoscaling/>

Question 28:

The AWS Identity and Access Management (IAM) service can be used to manage which objects? (Select TWO.)

1. Access policies
2. Network ACLs
3. Roles
4. Security groups
5. Key pairs

Correct Answer(s): 1, 3

Explanation:

Access policies are objects that you attach to entities and resources to define their permissions.

Roles are created and then “assumed” by trusted entities and define a set of permissions for making AWS service requests.

CORRECT: "Access policies" is a correct answer.

CORRECT: "Roles" is also a correct answer.

INCORRECT: "Security groups" is incorrect. Security groups are used as instance-level firewalls.

INCORRECT: "Network ACLs" is incorrect. Network ACLs are used as subnet-level firewalls.

INCORRECT: "Key pairs" is incorrect. Key pairs are created in EC2 and are used to login to EC2 instances. Don't confuse these with access keys and

secret IDs which are used to grant programmatic access to resources.

References:

https://docs.aws.amazon.com/IAM/latest/UserGuide/access_policies.html

Question 29:

Which feature can you use to grant read/write access to an Amazon S3 bucket?

1. IAM Role
2. IAM User
3. IAM Policy
4. IAM Group

Correct Answer(s): 3

Explanation:

Identity and access management (IAM) Policies are documents that define permissions and can be applied to users, groups and roles. IAM policies can be written to grant access to Amazon S3 buckets.

CORRECT: "IAM Policy" is the correct answer.

INCORRECT: "IAM Role" is incorrect. IAM Roles are created and then “assumed” by trusted entities and define a set of permissions for making AWS service requests.

INCORRECT: "IAM Group" is incorrect. IAM Groups are collections of users and have policies attached to them.

INCORRECT: "IAM User" is incorrect. An IAM user is an entity that represents a person or service.

References:

<https://aws.amazon.com/blogs/security/writing-iam-policies-how-to-grant-access-to-an-amazon-s3-bucket/>

Question 30:

Which architectural best practice aims to reduce the interdependencies between services?

1. Automation
2. Removing Single Points of Failure
3. Loose Coupling
4. Services, Not Servers

Correct Answer(s): 3

Explanation:

As application complexity increases, a desirable attribute of an IT system is that it can be broken into smaller, loosely coupled components. This means that IT systems should be designed in a way that reduces interdependencies—a change or a failure in one component should not cascade to other components

The concept of loose coupling includes “well-defined interfaces” which reduce interdependencies in a system by enabling interaction only through specific, technology-agnostic interfaces (e.g. RESTful APIs).

CORRECT: "Loose Coupling" is the correct answer.

INCORRECT: "Services, Not Servers" is incorrect. This best practice encourages the use of a wider variety of AWS services in your application architectures.

INCORRECT: "Removing Single Points of Failure" is incorrect. This best practice aims to increase system availability.

INCORRECT: "Automation" is incorrect. This best practice encourages the use of automation for efficiency and consistency.

References:

<https://aws.amazon.com/training/course-descriptions/architect/>

Question 31:

Which statement below is incorrect in relation to Security Groups?

1. They evaluate all rules before making a decision

2. They are stateless
3. Operate at the instance level
4. They support allow rules only

Correct Answer(s): 2

Explanation:

A security group acts as a virtual firewall for your instance to control incoming and outgoing traffic. Inbound rules control the incoming traffic to your instance, and outbound rules control the outgoing traffic from your instance

Security groups are stateful meaning that if traffic is allowed in one direction, the return traffic is automatically allowed regardless of whether there is a matching rule for the traffic.

| Security Group | Network ACL |
|--|---|
| Operates at the instance (interface) level | Operates at the subnet level |
| Supports allow rules only | Supports allow and deny rules |
| Stateful | Stateless |
| Evaluates all rules | Processes rules in order |
| Applies to an instance only if associated with a group | Automatically applies to all instances in the subnets its associated with |

CORRECT: "They are stateless" is the correct answer.

INCORRECT: "They operate at the instance level" is incorrect as this is statement is true.

INCORRECT: "They support allow rules only" is incorrect as this is statement is true.

INCORRECT: "They evaluate all rules before making a decision" is incorrect as this is statement is true.

References:

<https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/ec2-security-groups.html>

Question 32:

What advantages does deploying Amazon CloudFront provide? (Select TWO.)

1. Automated deployment of resources
2. Provides serverless compute services
3. Improved performance for end users
4. Reduced latency
5. A private network link to the AWS cloud

Correct Answer(s): 3, 4

Explanation:

content at “edge locations” located around the world. This allows customers to access content more quickly and provides security against DDoS attacks. CloudFront can be used for data, videos, applications, and APIs.

CORRECT: "Reduced latency" is a correct answer.

CORRECT: "Improved performance for end users" is also a correct answer.

INCORRECT: "A private network link to the AWS cloud" is incorrect. A private network link to the AWS cloud can be provisioned using AWS Direct Connect or an IPSec VPN

INCORRECT: "Automated deployment of resources" is incorrect. Automated deployment of resources is performed using CloudFormation.

INCORRECT: "Provides serverless compute services" is incorrect. CloudFront is a CDN not a serverless compute service

References:

<https://aws.amazon.com/cloudfront/>

Question 33:

Which AWS service can be used to generate encryption keys that can be used to encrypt data? (Select TWO.)

1. AWS CloudHSM
2. AWS Certificate Manager
3. AWS Secrets Manager
4. Amazon Macie
5. AWS Key Management Service (AWS KMS)

Correct Answer(s): 1, 5

Explanation:

Both AWS KMS and AWS CloudHSM can be used to generate data encryption keys. You use what are called customer master keys (CMKs) to create data encryption keys. The data encryption keys can then be used to actually encrypt the data.

CORRECT: "AWS Key Management Service (AWS KMS)" is a correct answer.

CORRECT: "AWS CloudHSM" is also a correct answer.

INCORRECT: "Amazon Macie" is incorrect. Amazon Macie is a fully managed data security and data privacy service that uses machine learning and pattern matching to discover and protect your sensitive data in AWS

INCORRECT: "AWS Certificate Manager" is incorrect. AWS Certificate Manager is a service that lets you easily provision, manage, and deploy public and private Secure Sockets Layer/Transport Layer Security (SSL/TLS) certificates for use with AWS services and your internal connected resources.

INCORRECT: "AWS Secrets Manager" is incorrect. AWS Secrets Manager helps you protect secrets needed to access your applications, services, and IT resources. The service enables you to easily rotate, manage, and retrieve database credentials, API keys, and other secrets throughout their lifecycle.

References:

<https://aws.amazon.com/kms/faqs/>

<https://aws.amazon.com/cloudhsm/faqs/>

Question 34:

For which services does Amazon not charge customers? (Select TWO.)

1. Amazon SNS
2. Amazon S3
3. Amazon VPC
4. Amazon CloudFormation
5. Amazon EBS

Correct Answer(s): 3, 4

Explanation:

Amazon VPC and CloudFormation are free of charge, however in the case of CloudFormation you pay for the resources it creates.

All other answers are chargeable services.

CORRECT: "Amazon VPC" is a correct answer.

CORRECT: "Amazon VPC" is also a correct answer.

INCORRECT: "Amazon EBS" is incorrect as this is a chargeable service.

INCORRECT: "Amazon S3" is incorrect as this is a chargeable service.

INCORRECT: "Amazon SNS" is incorrect as this is a chargeable service.

References:

<https://aws.amazon.com/pricing/services/>

Question 35:

A company plans to create a hybrid cloud architecture. What technology will allow them to create a hybrid cloud?

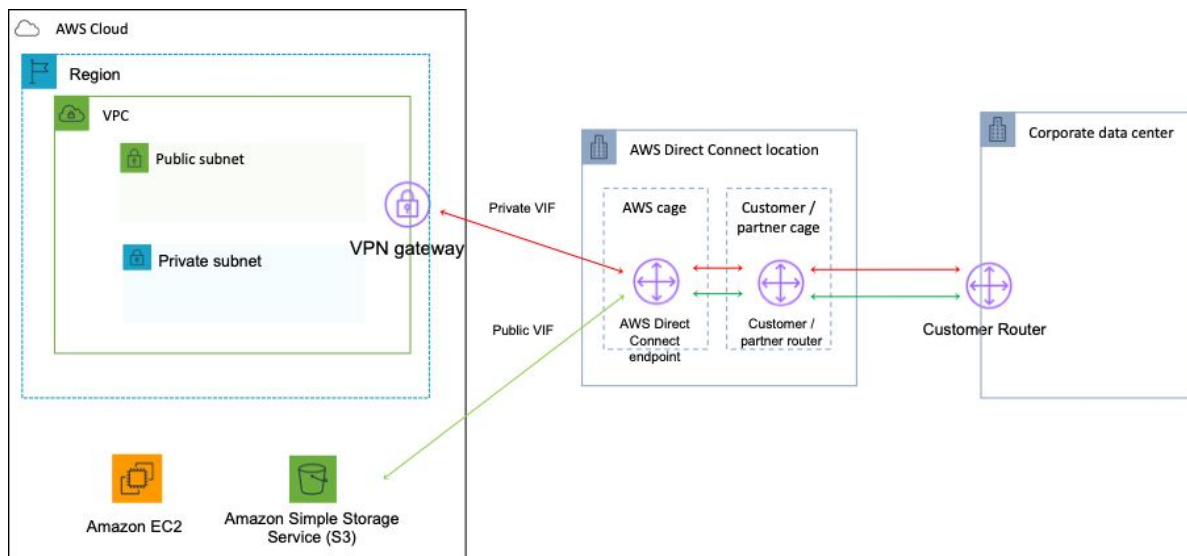
1. VPC Peering
2. Elastic Network Interface
3. AWS Direct Connect

4. Internet Gateway

Correct Answer(s): 3

Explanation:

AWS Direct Connect provides a low-latency, high bandwidth connection to connect customer on-premise environments with the AWS cloud which allows them to create a “hybrid” cloud architecture.



CORRECT: "AWS Direct Connect" is the correct answer.

INCORRECT: "VPC Peering" is incorrect. VPC peering is a way of allowing routing between VPCs in different AWS accounts.

INCORRECT: "Internet Gateway" is incorrect. An Internet Gateway is used to connect public subnets to the Internet.

INCORRECT: "Elastic Network Interface" is incorrect. An Elastic Network Interface (ENI) is a logical networking component in a VPC that represents a virtual network card.

References:

<https://aws.amazon.com/directconnect/>

Question 36:

Which AWS service can you use to install a third-party database?

1. Amazon RDS
2. Amazon EC2
3. Amazon DynamoDB
4. Amazon EMR

Correct Answer(s): 2

Explanation:

On AWS you can either use a managed service such as Amazon RDS or install a database on Amazon EC2. There are limits to what database engines are supported on Amazon RDS so to install a third-party database you can use Amazon EC2 instead. You will then be responsible for managing the operating system and database.

CORRECT: "Amazon EC2" is the correct answer.

INCORRECT: "Amazon RDS" is incorrect as you cannot choose to use a third-party database on Amazon RDS. You must use one of the supported engines.

INCORRECT: "Amazon DynamoDB" is incorrect as you cannot use any other type of database engine on DynamoDB.

INCORRECT: "Amazon EMR" is incorrect as this uses the Hadoop framework and you cannot choose another database engine.

References:

<https://aws.amazon.com/products/databases/>

Question 37:

Which types of pricing policies does AWS offer? (Select TWO.)

1. Enterprise license agreement (ELA)
2. Non-peak hour discounts
3. Pay-as-you-go
4. Global usage discounts
5. Save when you reserve

Correct Answer(s): 3, 5

Explanation:

Amazon pricing includes options for pay-as-you-go, save when you reserve and pay less by using more.

CORRECT: "Pay-as-you-go" is a correct answer.

CORRECT: "Save when you reserve" is also a correct answer.

INCORRECT: "Enterprise license agreement (ELA)" is incorrect. Amazon does not offer ELAs.

INCORRECT: "Non-peak hour discounts" is incorrect. Amazon does not offer non-peak hour discounts.

INCORRECT: "Global usage discounts" is incorrect. There are no global usage discounts.

References:

<https://aws.amazon.com/pricing/>

Question 38:

Which AWS services can be used to connect the AWS Cloud and on-premises resources? (Select TWO.)

1. AWS Managed Services
2. AWS Direct Connect
3. Amazon CloudHSM
4. Amazon Connect
5. AWS Managed VPN

Correct Answer(s): 2, 5

Explanation:

An AWS Managed VPN is a virtual private network connection over the public Internet. This creates an encrypted link between the on-premises network and your AWS VPC. Another way to achieve this outcome is to

provision an AWS Direct Connection which connects on-premises networks to AWS using private network links.

CORRECT: "AWS Managed VPN" is a correct answer.

CORRECT: "AWS Direct Connect" is also a correct answer.

INCORRECT: "Amazon Connect" is incorrect. Amazon Connect is an easy to use omnichannel cloud contact center that helps companies provide superior customer service at a lower cost.

INCORRECT: "Amazon CloudHSM" is incorrect. AWS CloudHSM is a cloud-based hardware security module (HSM) that enables you to easily generate and use your own encryption keys on the AWS Cloud.

INCORRECT: "AWS Managed Services" is incorrect. This is a managed service for lowering operational overhead and risk.

References:

<https://docs.aws.amazon.com/whitepapers/latest/aws-vpc-connectivity-options/aws-managed-vpn-network-to-amazon.html>

<https://aws.amazon.com/directconnect/>

Question 39:

Which AWS storage technology can be considered a "virtual hard disk in the cloud"?

1. Amazon Elastic File Storage (EFS) filesystem
2. Amazon S3 object
3. Amazon Glacier archive
4. Amazon Elastic Block Storage (EBS) volume

Correct Answer(s): 4

Explanation:

An EBS volume is a block storage device that is most similar to a virtual hard disk in the cloud as when attached to an instance it appears as a local disk that can have an operating system installed on or be formatted and used for any other local storage purpose.

CORRECT: "Amazon Elastic Block Storage (EBS) volume" is the correct answer.

INCORRECT: "Amazon Elastic File Storage (EFS) filesystem" is incorrect. An EFS filesystem is mounted over the NFS protocol which is a file-level protocol. Therefore, it is a network filesystem not a virtual hard disk and cannot have an operating system installed or be formatted and used as a locally attached disk.

INCORRECT: "Amazon S3 object" is incorrect. S3 is an object storage system and cannot be mounted and used as a virtual hard drive.

INCORRECT: "Amazon Glacier archive" is incorrect. Glacier is an archiving solution where you can archive your S3 objects at extremely low cost.

References:

<https://aws.amazon.com/ebs/>

Question 40:

Which service records API activity on your account and delivers log files to an Amazon S3 bucket?

1. Amazon CloudWatch
2. AWS CloudTrail
3. Amazon CloudWatch Logs
4. Amazon S3 Event Notifications

Correct Answer(s): 2

Explanation:

AWS CloudTrail is a web service that records activity made on your account and delivers log files to an Amazon S3 bucket. CloudTrail is for auditing whereas CloudWatch is for performance monitoring.

CORRECT: "AWS CloudTrail" is the correct answer.

INCORRECT: "Amazon CloudWatch" is incorrect as this service performs performance monitoring, not API auditing.

INCORRECT: "Amazon S3 Event Notifications" is incorrect. S3 Event Notifications is a feature that notifies you when certain events happen in your S3 buckets, it does not record API activity at the account level.

INCORRECT: "Amazon CloudWatch Logs" is incorrect. Amazon CloudWatch Logs lets you monitor and troubleshoot your systems and applications using your existing system, application and custom log files

References:

<https://aws.amazon.com/cloudtrail/>

Question 41:

Which feature of Amazon Rekognition can assist with saving time?

1. Identification of the language of text in a document
2. Provides on-demand access to compliance-related information
3. Identification of objects in images and videos
4. Adds automatic speech recognitions (ASR) to applications

Correct Answer(s): 3

Explanation:

Amazon Rekognition makes it easy to add image and video analysis to your applications. You just provide an image or video to the Rekognition API, and the service can identify the objects, people, text, scenes, and activities, as well as detect any inappropriate content.

CORRECT: "Identification of objects in images and videos" is the correct answer.

INCORRECT: "Identification of the language of text in a document" is incorrect. Amazon Comprehend identifies the language of the text; extracts key phrases, places, people, brands, or events; understands how positive or negative the text is; analyzes text using tokenization and parts of speech; and automatically organizes a collection of text files by topic.

INCORRECT: "Adds automatic speech recognitions (ASR) to applications" is incorrect. Amazon Transcribe is an automatic speech recognition (ASR)

service that makes it easy for developers to add speech-to-text capability to their applications

INCORRECT: "Provides on-demand access to compliance-related information" is incorrect. AWS Artifact is a resource for compliance-related information. It provides on-demand access to AWS' security and compliance reports and select online agreements

References:

<https://aws.amazon.com/rekognition/>

Question 42:

What are two ways that moving to an AWS cloud can benefit an organization? (Select TWO.)

1. Stop guessing about capacity
2. Gain greater control of data center security
3. Switch to a CAPEX model
4. Increase speed and agility
5. Depreciate assets over a longer timeframe

Correct Answer(s): 1, 4

Explanation:

Increase speed and agility:

In a cloud computing environment, new IT resources are only a click away, which means that you reduce the time to make those resources available to your developers from weeks to just minutes. This results in a dramatic increase in agility for the organization, since the cost and time it takes to experiment and develop is significantly lower

Stop guessing about capacity:

Eliminate guessing on your infrastructure capacity needs. When you make a capacity decision prior to deploying an application, you often end up either sitting on expensive idle resources or dealing with limited capacity. With cloud computing, these problems go away. You can access as much or as

little capacity as you need, and scale up and down as required with only a few minutes' notice

CORRECT: "Increase speed and agility" is a correct answer.

CORRECT: "Increase speed and agility" is also a correct answer.

INCORRECT: "Switch to a CAPEX model" is incorrect. Cloud is based on an operational expenditure (OPEX) model, not a capital expenditure (CAPEX) model.

INCORRECT: "Depreciate assets over a longer timeframe" is incorrect. Cloud does not provide the ability to depreciate assets over a longer timeframe as you generally do not own the assets.

INCORRECT: "Gain greater control of data center security" is incorrect. Though the AWS cloud does provide significant security standards for the data center, you do not get more control as this is an AWS responsibility.

References:

<https://docs.aws.amazon.com/whitepapers/latest/aws-overview/six-advantages-of-cloud-computing.html>

Question 43:

What is the most cost-effective support plan that should be selected to provide at least a 1-hour response time for a production system failure?

1. Business
2. Basic
3. Enterprise
4. Developer

Correct Answer(s): 1

Explanation:

The Business support plan provides < 1 hour response times for a production system failure.

CORRECT: "Business" is the correct answer.

INCORRECT: "Basic" is incorrect. Basic does not provide any technical support.

INCORRECT: "Developer" is incorrect. Developer provides business hours access via email.

INCORRECT: "Enterprise" is incorrect. Enterprise provides < 1 hour response times for a production system failure but is a more expensive.

References:

<https://aws.amazon.com/premiumsupport/plans/>

Question 44:

Which aspects of security on AWS are customer responsibilities? (Select TWO.)

1. Setting up account password policies
2. Patching of storage systems
3. Server-side encryption
4. Availability of AWS regions
5. Physical access controls

Correct Answer(s): 1, 3

Explanation:

AWS are responsible for the “security of the cloud”. This includes protecting the infrastructure that runs all of the services offered in the AWS Cloud. This infrastructure is composed of the hardware, software, networking, and facilities that run AWS Cloud services.

The customer is responsible for “security in the cloud”. Customer responsibility depends on the service consumed but includes aspects such as Identity and Access Management (includes password policies), encryption of data, protection of network traffic, and operating system, network and firewall configuration.

References:

<https://aws.amazon.com/compliance/shared-responsibility-model/>

Question 45:

Which AWS service can be used to convert video and audio files from their source format into versions that will playback on devices like smartphones, tablets and PC?

1. Elastic Load Balancer
2. Elastic Beanstalk
3. Auto Scaling
4. Elastic Transcoder

Correct Answer(s): 4

Explanation:

Amazon Elastic Transcoder is a highly scalable, easy to use and cost-effective way for developers and businesses to convert (or “transcode”) video and audio files from their source format into versions that will playback on devices like smartphones, tablets and PCs.

CORRECT: "Elastic Transcoder" is the correct answer.

INCORRECT: "Elastic Beanstalk" is incorrect. AWS Elastic Beanstalk can be used to quickly deploy and manage applications in the AWS Cloud.

INCORRECT: "Elastic Load Balancer" is incorrect. ELB is used to distribute incoming connections to EC2 instances

INCORRECT: "Auto Scaling" is incorrect. Auto Scaling is used to automatically ensure the right number of EC2 instances are available to service current load.

References:

<https://aws.amazon.com/elastictranscoder/>

Question 46:

Which AWS service is used to enable multi-factor authentication?

1. Amazon STS

2. AWS KMS
3. AWS IAM
4. Amazon EC2

Correct Answer(s): 3

Explanation:

The identity and access management service (IAM) is used to securely control individual and group access to AWS resources. IAM can also be used to manage multi-factor authentication (MFA). With MFA you add an additional factor of authentication such Google Authenticator device. This is “something you have” and is used with your password “something you know”.

Something you know:

EJPx!*21p9%
Password

Something you have:



Something you are:



CORRECT: "AWS IAM" is the correct answer.

INCORRECT: "Amazon STS" is incorrect. The AWS Security Token Service (STS) is a web service that enables you to request temporary, limited-privilege credentials for IAM users or for users that you authenticate (federated users).

INCORRECT: "Amazon EC2" is incorrect. Amazon EC2 is used for running operating systems instances in the cloud.

INCORRECT: "AWS KMS" is incorrect. AWS Key Management Service (KMS) is a managed service that makes it easy for you to create and control the encryption keys used to encrypt your data.

References:

https://docs.aws.amazon.com/IAM/latest/UserGuide/id_credentials_mfa_enable_virtual.html

Question 47:

Under the AWS shared responsibility model what is the customer responsible for? (Select TWO.)

1. Physical security of the data center
2. Patch management of infrastructure
3. Encryption of customer data
4. Configuration of security groups
5. Replacement and disposal of disk drives

Correct Answer(s): 3, 4

Explanation:

AWS are responsible for “Security of the Cloud” and customers are responsible for “Security in the Cloud”.

AWS are responsible for items such as the physical security of the DC, replacement of old disk drives, and patch management of the infrastructure

Customers are responsible for items such as configuring security groups, network ACLs, patching their operating systems and encrypting their data

CORRECT: "Configuration of security groups" is a correct answer.

CORRECT: "Encryption of customer data" is also a correct answer.

INCORRECT: "Physical security of the data center" is incorrect as this is an AWS responsibility.

INCORRECT: "Replacement and disposal of disk drives" is incorrect as this is an AWS responsibility.

INCORRECT: "Patch management of infrastructure" is incorrect as this is an AWS responsibility.

References:

<https://aws.amazon.com/compliance/shared-responsibility-model/>

Question 48:

Which of the following is a method of backup available in the AWS cloud?

1. Amazon EFS File Systems
2. Amazon EBS Snapshots
3. Amazon Route 53 Alias Record
4. Availability Zones

Correct Answer(s): 2

Explanation:

Amazon Elastic Block Store (EBS) is a block-based storage system that provides a “virtual hard disk in the cloud”. You can back up your EBS volumes using snapshots which are point-in-time copies of the data.

CORRECT: "Amazon EBS Snapshots" is the correct answer.

INCORRECT: "Availability Zones" is incorrect. Availability Zones are part of the AWS Global Infrastructure. AZs can be used for high availability and fault tolerance as you can architect your applications to be spread across them. However, they are not a backup solution.

INCORRECT: "Amazon EFS File Systems" is incorrect. The Amazon Elastic File System (EFS) provides file-based storage that you access using the NFS v2 protocol. This is storage service but not a backup service. You can backup EFS using the AWS Backup service or using EFS-to-EFS backup.

INCORRECT: "Amazon Route 53 Alias Record" is incorrect. Amazon Route 53 provides a DNS service and an Alias record is a type of record that can map a public domain name to an AWS service target.

References:

<https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/EBSSnapshots.html>

Question 49:

What advantages do you get from using the AWS cloud? (Select TWO.)

1. Stop guessing about capacity
2. Trade capital expense for variable expense
3. Increased capital expenditure
4. Gain greater control of the infrastructure layer
5. Comply with all local security compliance programs

Correct Answer(s): 1, 2

Explanation:

The 6 advantages of cloud are:

- 1) Trade capital expense for variable expense
- 2) Benefit from massive economies of scale
- 3) Stop guessing about capacity
- 4) Increase speed and agility
- 5) Stop spending money running and maintaining data centers
- 6) Go global in minutes

You do not gain greater control of the infrastructure layer as AWS largely control this, and though AWS is compliant with lots of security compliance programs, not all programs in all local countries will be included

CORRECT: "Trade capital expense for variable expense" is a correct answer.

CORRECT: "Stop guessing about capacity" is a correct answer.

INCORRECT: "Increased capital expenditure" is incorrect as you should lower your capital expenditure by moving to the cloud.

INCORRECT: "Gain greater control of the infrastructure layer" is incorrect as you do not gain control of the infrastructure layer, you lose this control when moving from on-premises to the AWS cloud.

INCORRECT: "Comply with all local security compliance programs" is incorrect as AWS do not comply with all security compliance programs worldwide.

References:

<https://docs.aws.amazon.com/whitepapers/latest/aws-overview/six-advantages-of-cloud-computing.html>

Question 50:

Which service can be used to track the CPU usage of an EC2 instance?

1. Amazon CloudTrail
2. Amazon CloudFormation
3. Amazon CloudFront
4. Amazon CloudWatch

Correct Answer(s): 4

Explanation:

Amazon CloudWatch is a monitoring service for AWS cloud resources and the applications you run on AWS. CloudWatch is for performance monitoring, whereas CloudTrail is for auditing

CORRECT: "Amazon CloudWatch" is the correct answer.

INCORRECT: "Amazon CloudTrail" is incorrect. AWS CloudTrail is a web service that records activity made on your account and delivers log files to an Amazon S3 bucket.

INCORRECT: "Amazon CloudFront" is incorrect. CloudFront is a content delivery network (CDN) that caches content.

INCORRECT: "Amazon CloudFormation" is incorrect. CloudFormation is used for automated provisioning of infrastructure.

References:

<https://aws.amazon.com/cloudwatch/>

Question 51:

Which pricing model should you use for EC2 instances that will be used in a lab environment for several hours on a weekend and must run

uninterrupted?

1. On-Demand
2. Spot
3. Reserved
4. Dedicated Instance

Correct Answer(s): 1

Explanation:

On-Demand is the best choice for this situation as it is the most economical option that will ensure no interruptions. Use on-demand for ad-hoc use cases where you need to run an instance for a short period of time.

CORRECT: "On-Demand" is the correct answer.

INCORRECT: "Reserved" is incorrect. Reserved instances are good for long-term, static requirements as you must lock-in for 1 or 3 years in return for a decent discount.

INCORRECT: "Spot" is incorrect. Spot instances are good for short term requirements as they can be very economical. However, you may find that the instance is terminated if AWS need to capacity back.

INCORRECT: "Dedicated Instance" is incorrect. Dedicated instances are EC2 instances that run on hardware dedicated to a single customer.

References:

<https://aws.amazon.com/ec2/pricing/>

Question 52:

How can an organization compare the cost of running applications in an on-premise or colocation environment against the AWS cloud?

1. AWS Cost Explorer
2. TCO Calculator
3. AWS Simple Monthly Calculator
4. AWS Budgets

Correct Answer(s): 2

Explanation:

The TCO calculator is a free tool provided by AWS that allows you to estimate the cost savings of using the AWS Cloud vs. using an on-premised data center.

The TCO calculator can compare the cost of your applications in an on-premises or traditional hosting environment to AWS. You describe your on-premises or hosting environment configuration to produce a detailed cost comparison with AWS.

CORRECT: "TCO Calculator" is the correct answer.

INCORRECT: "AWS Budgets" is incorrect. AWS Budgets gives you the ability to set custom budgets that alert you when your costs or usage exceed (or are forecasted to exceed) your budgeted amount.

INCORRECT: "AWS Simple Monthly Calculator" is incorrect. The AWS Simple Monthly Calculator helps customers and prospects estimate their monthly AWS bill more efficiently

INCORRECT: "AWS Cost Explorer" is incorrect. The AWS Cost Explorer is a free tool that allows you to view charts of your costs. You can view cost data for the past 13 months and forecast how much you are likely to spend over the next three months.

References:

<https://aws.amazon.com/tco-calculator/>

Question 53:

Which AWS service can an organization use to automate operational tasks on EC2 instances using existing Chef cookbooks?

1. AWS Config
2. AWS Service Catalog
3. AWS CodeDeploy
4. AWS OpsWorks

Correct Answer(s): 4

Explanation:

AWS OpsWorks is a configuration management service that provides managed instances of Chef and Puppet. With Chef, you use code templates, or cookbooks, to describe the desired configuration of instances or on-premises server.

CORRECT: "AWS OpsWorks" is the correct answer.

INCORRECT: "AWS Service Catalog" is incorrect. AWS Service Catalog allows organizations to create and manage catalogs of IT services that are approved for use on AWS.

INCORRECT: "AWS Config" is incorrect. AWS Config is a service that enables you to assess, audit, and evaluate the configurations of your AWS resource.

INCORRECT: "AWS CodeDeploy" is incorrect. AWS CodeDeploy is a fully managed deployment service that automates software deployments to a variety of compute services such as Amazon EC2, AWS Lambda, and your on-premises servers.

References:

<https://aws.amazon.com/opsworks/chefautomate/features/>

Question 54:

Which AWS service can be used to process a large amount of data using the Hadoop framework?

1. AWS Glue
2. Amazon Kinesis
3. Amazon EMR
4. Amazon Athena

Correct Answer(s): 3

Explanation:

Amazon Elastic Map Reduce (EMR) provides a managed Hadoop framework that makes it easy, fast, and cost-effective to process vast amounts of data across dynamically scalable Amazon EC2 instances.

CORRECT: "Amazon EMR" is the correct answer.

INCORRECT: "Amazon Athena" is incorrect. Amazon Athena is an interactive query service that makes it easy to analyze data in Amazon S3 using standard SQL.

INCORRECT: "Amazon Kinesis" is incorrect. Amazon Kinesis makes it easy to collect, process, and analyze real-time, streaming data so you can get timely insights and react quickly to new information.

INCORRECT: "AWS Glue" is incorrect. AWS Glue is a fully managed extract, transform, and load (ETL) service that makes it easy for customers to prepare and load their data for analytics.

References:

<https://aws.amazon.com/emr/>

Question 55:

Which service can you use to provision a preconfigured server with little to no AWS experience?

1. Amazon Elastic Beanstalk
2. AWS Lambda
3. Amazon Lightsail
4. Amazon EC2

Correct Answer(s): 3

Explanation:

Amazon LightSail provides developers compute, storage, and networking capacity and capabilities to deploy and manage websites, web applications, and databases in the cloud.

LightSail provides preconfigured virtual private servers (instances) that include everything required to deploy and application or create a database.

Deploying a server on LightSail is extremely easy and does not require knowledge of how to configure VPCs, security groups, network ACLs etc.

CORRECT: "Amazon LightSail" is the correct answer.

INCORRECT: "Amazon Elastic Beanstalk" is incorrect. AWS Elastic Beanstalk can be used to quickly deploy and manage applications in the AWS Cloud. It is considered a PaaS service. However, you do still need to deploy within a VPC so more AWS expertise is required

INCORRECT: "AWS Lambda" is incorrect. AWS Lambda provides serverless functions not preconfigured servers.

INCORRECT: "Amazon EC2" is incorrect. Amazon EC2 also requires AWS expertise as it deploys within a VPC.

References:

<https://aws.amazon.com/lightsail/>

Question 56:

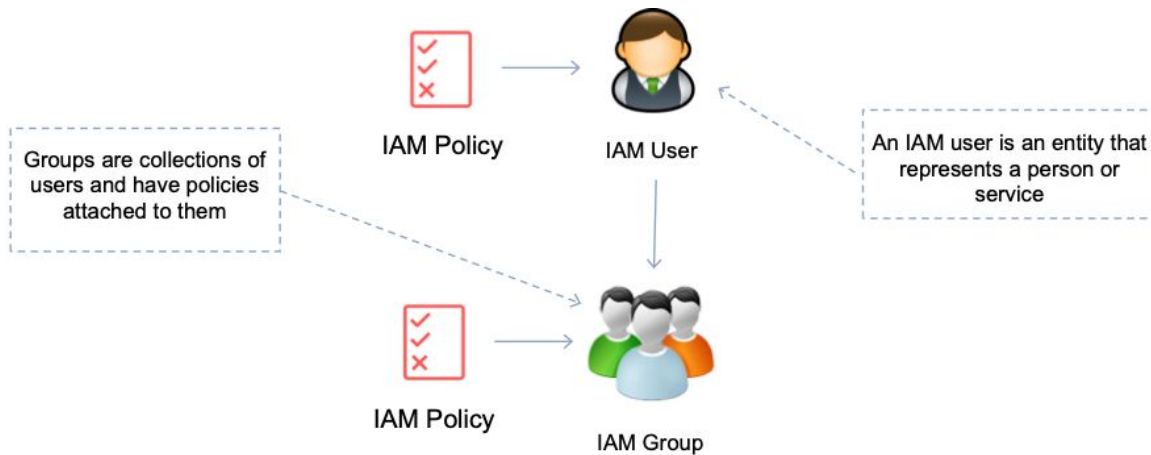
Which of the following are accurate descriptions of AWS IAM users and groups? (Select TWO).

1. All new users are automatically added to a default group
2. Groups can contain users only and cannot be nested
3. A user can only be a member of a single group at one a time
4. A user can be a member of multiple groups
5. Groups can be nested and can contain other groups

Correct Answer(s): 2, 4

Explanation:

IAM groups are used for organizing users and applying policies (permissions) to them. You can add users to multiple groups. Groups cannot be nested, which means you cannot have a group as a member of another group or organize groups in a hierarchy.



CORRECT: "A user can be a member of multiple groups" is a correct answer.

CORRECT: "Groups can contain users only and cannot be nested" is also a correct answer.

INCORRECT: "Groups can be nested and can contain other groups" is incorrect. You cannot make a group a member of another group or organize them in a hierarchy.

INCORRECT: "A user can only be a member of a single group at one a time" is incorrect. This is not true, users can be members of multiple groups.

INCORRECT: "All new users are automatically added to a default group" is incorrect. There is no default group that users are added to when they are created.

References:

<https://docs.aws.amazon.com/IAM/latest/UserGuide/id.html>

Question 57:

Which tool enables you to visualize your usage patterns over time and to identify your underlying cost drivers?

1. AWS Cost Explorer
2. AWS Simple Monthly Calculator
3. Total Cost of Ownership (TCO) Calculator
4. AWS Budgets

Correct Answer(s): 1

Explanation:

The AWS Cost Explorer is a free tool that allows you to view charts of your costs. You can view cost data for the past 13 months and forecast how much you are likely to spend over the next three months. Cost Explorer can be used to discover patterns in how much you spend on AWS resources over time and to identify cost problem area.

CORRECT: "AWS Cost Explorer" is the correct answer.

INCORRECT: "AWS Simple Monthly Calculator" is incorrect. The AWS Simple Monthly Calculator helps customers and prospects estimate their monthly AWS bill more efficiently

INCORRECT: "Total Cost of Ownership (TCO) Calculator" is incorrect. The TCO calculator is a free tool provided by AWS that allows you to estimate the cost savings of using the AWS Cloud vs. using an on-premised data center.

INCORRECT: "AWS Budgets" is incorrect. AWS Budgets gives you the ability to set custom budgets that alert you when your costs or usage exceed (or are forecasted to exceed) your budgeted amount.

References:

<https://aws.amazon.com/aws-cost-management/aws-budgets/>

Question 58:

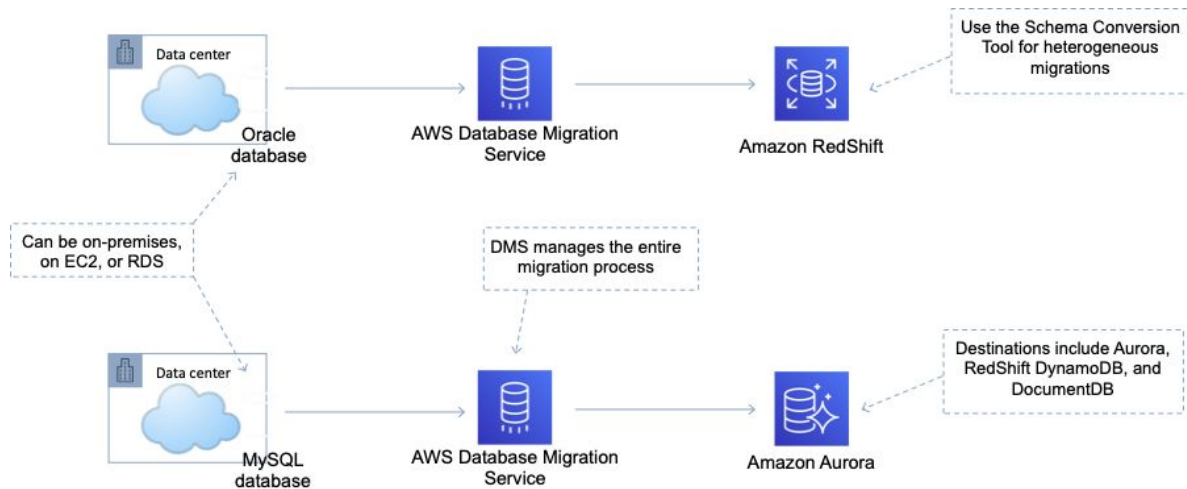
Which service can be used to help you to migrate databases to AWS quickly and securely?

1. AWS DataSync
2. AWS Server Migration Service (SMS)
3. AWS Key Management Service (KMS)
4. AWS Database Migration Service (DMS)

Correct Answer(s): 4

Explanation:

AWS Database Migration Service is used to migrate databases to AWS quickly and securely. The source database remains fully operational during the migration, minimizing downtime to applications that rely on the database. The AWS Database Migration Service can migrate data to and from most widely used commercial and open-source databases.



CORRECT: "AWS Database Migration Service (DMS)" is the correct answer.

INCORRECT: "AWS Server Management Service (SMS)" is incorrect. AWS Server Migration Service (SMS) is used to migrate virtual machines not databases

INCORRECT: "AWS Key Management Service (KMS)" is incorrect. AWS Key Management Service (KMS) is used for managing encryption keys.

INCORRECT: "AWS DataSync" is incorrect. This service is used for migrating data from network attached storage (NAS) devices to AWS. It is not used for databases.

References:

<https://aws.amazon.com/dms/>

Question 59:

A company would like to maximize their potential volume and reserved instance discounts across multiple accounts and also apply service control policies on member accounts. What can they use gain these benefits?

1. AWS Organizations
2. AWS Cost Explorer
3. AWS IAM
4. AWS Budgets

Correct Answer(s): 1

Explanation:

AWS Organizations enables you to create groups of AWS accounts and then centrally manage policies across those accounts. AWS Organizations provides consolidated billing in both feature sets, which allows you set up a single payment method in the organization's master account and still receive an invoice for individual activity in each member account. Volume pricing discounts can be applied to resources.

CORRECT: "AWS Organizations" is the correct answer.

INCORRECT: "AWS Budgets" is incorrect. AWS Budgets gives you the ability to set custom budgets that alert you when your costs or usage exceed (or are forecasted to exceed) your budgeted amount.

INCORRECT: "AWS Cost Explorer" is incorrect. The AWS Cost Explorer is a free tool that allows you to view charts of your costs

INCORRECT: "AWS IAM" is incorrect. AWS Identity and Access Management (IAM) enables you to manage access to AWS services and resources securely

References:

https://docs.aws.amazon.com/organizations/latest/userguide/orgs_getting-started_concepts.html

Question 60:

What considerations are there when choosing which region to use? (Select TWO.)

1. Data sovereignty
2. Pricing in local currency
3. Latency
4. Available storage capacity
5. Available compute capacity

Correct Answer(s): 1, 3

Explanation:

You may choose a region to reduce latency, minimize costs, or address regulatory requirements.

Latency is the delay caused mostly by distance. This means you should choose to create your buckets in Regions that are closer (physically) to your users.

Some countries or industries have regulations that mandate data must not leave a jurisdiction or country border. In this case you simply select an AWS Region accordingly.

CORRECT: "Data sovereignty" is a correct answer.

CORRECT: "Latency" is also a correct answer.

INCORRECT: "Available storage capacity" is incorrect. Available capacity is generally not a concern as AWS has a large pool of resources and does not disclose the available capacity in each region.

INCORRECT: "Pricing in local currency" is incorrect. Pricing for AWS services is in USD

INCORRECT: "Available compute capacity" is incorrect. Available capacity is generally not a concern as AWS has a large pool of resources and does not disclose the available capacity in each region.

References:

<https://docs.aws.amazon.com/emr/latest/ManagementGuide/emr-plan-region.html>

Question 61:

What is an availability zone composed of?

1. A collection of VPCs
2. One or more regions
3. One or more data centers in a location
4. A collection of edge locations

Correct Answer(s): 3

Explanation:

Availability zones are composed of one or more data centers in a location. Availability Zones are physically separate and isolated from each other. AZ's have direct, low-latency, high throughput and redundant network connections between each other

CORRECT: "One or more data centers in a location" is the correct answer.

INCORRECT: "One or more regions" is incorrect. A region is a geographical area. Each region consists of 2 or more availability zones

INCORRECT: "A collection of edge locations" is incorrect. Edge locations are used by the CloudFront network, they are not related to AZs.

INCORRECT: "A collection of VPCs" is incorrect. AZs exist within a VPC.

References:

<https://aws.amazon.com/about-aws/global-infrastructure/>

Question 62:

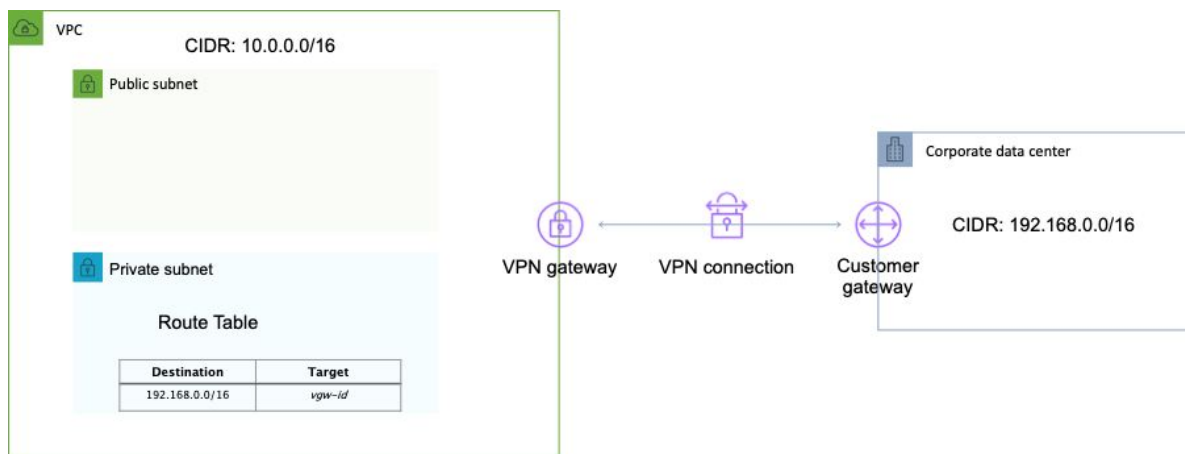
What can you use to quickly connect your office securely to your Amazon VPC?

1. Internet Gateway
2. Direct Connect
3. AWS managed VPN
4. Route Table

Correct Answer(s): 3

Explanation:

An AWS managed VPN can be used to quickly connect from an office to an Amazon VPC. An Amazon VPC provides the option of creating an IPsec VPN connection between remote customer networks and their Amazon VPC over the internet, as shown in the following figure. Consider taking this approach when you want to take advantage of an AWS managed VPN endpoint that includes automated multi-data center redundancy and failover built into the AWS side of the VPN connection



CORRECT: "AWS managed VPN" is the correct answer.

INCORRECT: "Route Table" is incorrect. A Route Table is part of a VPC and is used to control how traffic is routed within the VPC.

INCORRECT: "Internet Gateway" is incorrect. An Internet Gateway is used to connect a public subnet to the Internet.

INCORRECT: "Direct Connect" is incorrect. AWS Direct Connect provides high-bandwidth, low-latency connectivity but takes weeks to months to setup (and is much more expensive).

References:

<https://docs.aws.amazon.com/whitepapers/latest/aws-vpc-connectivity-options/aws-managed-vpn-network-to-amazon.html>

Question 63:

What method can you use to take a backup of an Amazon EC2 instance using AWS tools?

1. Take application-consistent backups using the EC2 API
2. Use Cross Region Replication (CRR) to copy the instance to another region
3. Take full and incremental file-level backups using the backup console
4. Take a snapshot to capture the point-in-time state of the instance

Correct Answer(s): 4

Explanation:

You can take snapshots of EC2 instances which creates a point-in-time copy of the instance. Snapshots are stored on S3. If you make periodic snapshots of a volume, the snapshots are incremental, which means that only the blocks on the device that have changed after your last snapshot are saved in the new snapshot.

CORRECT: "Take a snapshot to capture the point-in-time state of the instance" is the correct answer.

INCORRECT: "Take full and incremental file-level backups using the backup console" is incorrect. There is no backup console that can take full and incremental backups

INCORRECT: "Take application-consistent backups using the EC2 API" is incorrect. There is no way of taking application-consistent backups using any AWS tools

INCORRECT: "Use Cross Region Replication (CRR) to copy the instance to another region" is incorrect. Cross Region Replication is used to replicate Amazon S3 buckets across regions

References:

<https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/EBSSnapshots.html>

Question 64:

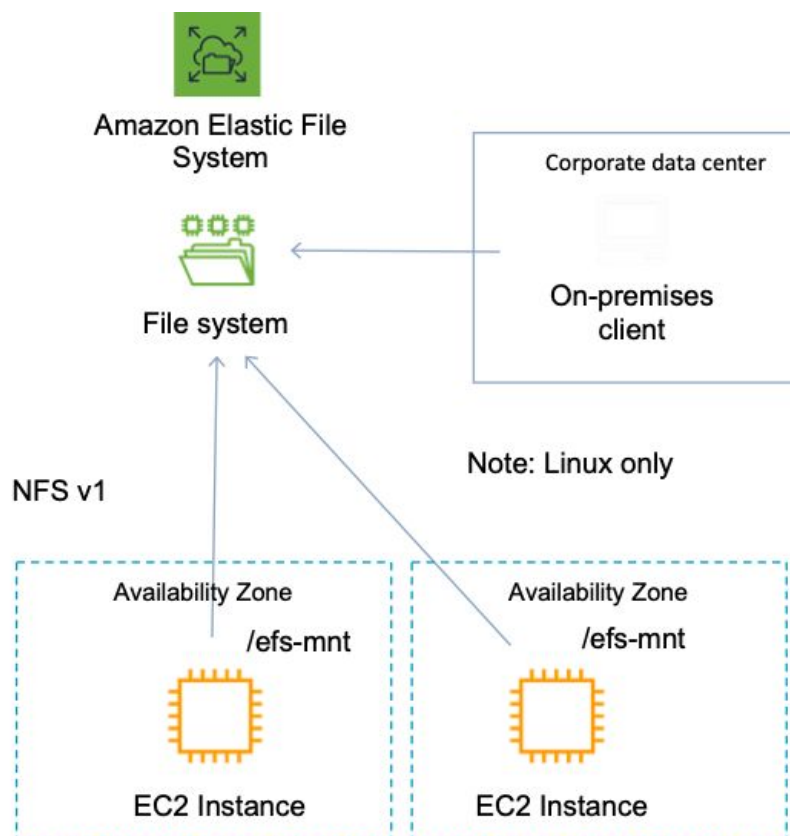
Which storage service allows you to connect multiple EC2 instances concurrently using file-level protocols?

1. Amazon S3
2. Amazon EFS
3. Amazon Glacier
4. Amazon EBS

Correct Answer(s): 2

Explanation:

Amazon Elastic File System allows you to connect hundreds or thousands of EC2 instances concurrently and is accessed using the file-level NFS protocol.



CORRECT: "Amazon EFS" is the correct answer.

INCORRECT: "Amazon S3" is incorrect. Amazon S3 is an object storage system.

INCORRECT: "Amazon EBS" is incorrect. Amazon Elastic Block Storage provides block-level volumes to individual EC2 instances (cannot connect multiple instances to a single EBS volume)

INCORRECT: "Amazon Glacier" is incorrect. Glacier is used for archiving S3 objects.

References:

<https://aws.amazon.com/efs/>

Question 65:

A company plans to deploy a global commercial application on Amazon EC2 instances. The deployment solution be designed with the highest redundancy and fault tolerance.

Based on this situation, how should the EC2 instances be deployed?

1. In a single Availability Zone in two AWS Regions
2. Across multiple Availability Zones in one AWS Region
3. In a single Availability Zone in one AWS Region
4. Across multiple Availability Zones in two AWS Regions

Correct Answer(s): 4

Explanation:

For maximum redundancy and fault tolerance the application should be deployed in multiple AWS Regions and multiple Availability Zones within each of those regions. This architecture may use Elastic Load Balancers and Amazon Route 53 records to direct traffic to instances. Alternatively, it could use AWS Global Accelerator.

CORRECT: "Across multiple Availability Zones in two AWS Regions" is the correct answer.

INCORRECT: "In a single Availability Zone in one AWS Region" is incorrect as this does not represent the highest redundancy and fault tolerance.

INCORRECT: "In a single Availability Zone in two AWS Regions" is incorrect as this does not represent the highest redundancy and fault tolerance.

INCORRECT: "Across multiple Availability Zones in one AWS Region" is incorrect as this does not represent the highest redundancy and fault tolerance.

References:

<https://aws.amazon.com/architecture/well-architected/>

AWS CERTIFIED CLOUD PRACTITIONER

TEST 2

AWS CERTIFIED CLOUD PRACTITIONER:

TEST 2

Return to review

Attempt 1

All knowledge areas

All questions

Question 1:

Which of the facts below are accurate in relation to AWS Regions? (Select TWO.)

1. Regions have direct, low-latency, high throughput and redundant network connections between each other
2. Each region consists of 2 or more availability zones
3. Regions are Content Delivery Network (CDN) endpoints for CloudFront
4. Each region is designed to be completely isolated from the other Amazon Regions
5. Each region consists of a collection of VPCs

Correct Answer(s): 2, 4

Explanation:

Availability Zones (not regions) have direct, low-latency, high throughput and redundant network connections between each other. Each AWS Region consist of 2 or more Availability Zones. AWS Regions are geographical areas and each AWS Region is designed to be completely isolated from other AWS Regions.

CORRECT: "Each region consists of 2 or more availability zones" is a correct answer.

CORRECT: "Each region is designed to be completely isolated from the other Amazon Regions" is also a correct answer.

INCORRECT: "Each region consists of a collection of VPCs" is incorrect. A region is not a collection of VPCs, it is composed of at least 2 AZs. VPCs exist within accounts on a per region basis.

INCORRECT: "Regions have direct, low-latency, high throughput and redundant network connections between each other" is incorrect. This is a description of an Availability Zone.

INCORRECT: "Regions are Content Delivery Network (CDN) endpoints for CloudFront" is incorrect. Edge locations are (not regions) are Content Delivery Network (CDN) endpoints for CloudFront

References:

<https://aws.amazon.com/about-aws/global-infrastructure/>

Question 2:

Which AWS service can be used to host a static website?

1. Amazon S3
2. AWS CloudFormation
3. Amazon EFS
4. Amazon EBS

Correct Answer(s): 1

Explanation:

You can use Amazon S3 to host a static website. On a static website, individual webpages include static content. They might also contain client-side scripts.

By contrast, a dynamic website relies on server-side processing, including server-side scripts such as PHP, JSP, or ASP.NET. Amazon S3 does not support server-side scripting, but AWS has other resources for hosting dynamic websites.

CORRECT: "Amazon S3" is the correct answer.

INCORRECT: "Amazon EBS" is incorrect as it cannot be used to host a static website.

INCORRECT: "AWS CloudFormation" is incorrect as it cannot be used to host a static website.

INCORRECT: "Amazon EFS" is incorrect as it cannot be used to host a static website.

References:

<https://docs.aws.amazon.com/AmazonS3/latest/dev/WebsiteHosting.html>

Question 3:

Amazon S3 is typically used for which of the following use cases? (Select TWO.)

1. Media hosting
2. Host a static website
3. In-memory data cache
4. Message queue
5. Install an operating system

Correct Answer(s): 1, 2

Explanation:

Amazon S3 is an object storage system. Typical use cases include: Backup and storage, application hosting, media hosting, software delivery and hosting a static website.

CORRECT: "Host a static website" is the correct answer.

CORRECT: "Media hosting" is the correct answer.

INCORRECT: "Install an operating system" is incorrect. You cannot install an operating system on an object-based storage system. Instead, you need a block-based storage system such as Amazon EBS.

INCORRECT: "In-memory data cache" is incorrect. You cannot use Amazon S3 as an in-memory data cache; for this you need a service such as Amazon ElastiCache.

INCORRECT: "Message queue" is incorrect. You cannot use Amazon S3 as a message queue (or at least it is not a typical use case). You should use a

services such as Amazon SQS or Amazon MQ.

References:

<https://docs.aws.amazon.com/AmazonS3/latest/gsg/S3-gsg-CommonUseScenarios.html>

Question 4:

A company needs a consistent and dedicated connection between AWS resources and an on-premise system.

Which AWS service can fulfil this requirement?

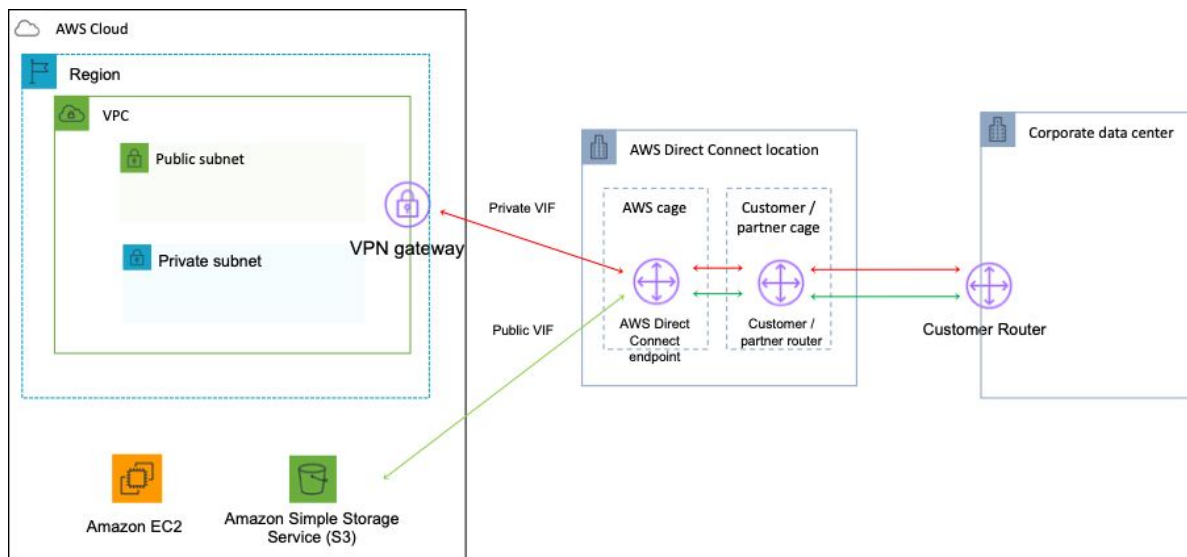
1. Amazon Connect
2. AWS DataSync
3. AWS Managed VPN
4. AWS Direct Connect

Correct Answer(s): 4

Explanation:

An AWS Direct Connect connection is a private, dedicated link to AWS. As it does not use the internet, performance is consistent.

The following diagram shows how a corporate data center is connected to AWS using a Direct Connect link via an AWS Direct Connect location:



CORRECT: "AWS Direct Connect" is the correct answer.

INCORRECT: "AWS Managed VPN" is incorrect. This services uses the public internet so it is not a dedicated link and performance will not be consistent.

INCORRECT: "Amazon Connect" is incorrect. Amazon Connect is an easy to use omnichannel cloud contact center that helps companies provide superior customer service at a lower cost

INCORRECT: "AWS DataSync" is incorrect. AWS DataSync makes it simple and fast to move large amounts of data online between on-premises storage and Amazon S3, Amazon Elastic File System (Amazon EFS), or Amazon FSx for Windows File Server.

References:

<https://aws.amazon.com/directconnect/>

Question 5:

Which items should be included in a TCO analysis comparing on-premise to AWS Cloud? (Select TWO.)

1. Compute hardware
2. Data center security
3. Operating system patching
4. Application licensing

5. Firewall management

Correct Answer(s): 1, 2

Explanation:

You need to identify the items that have a cost on-premise and that will be rolled into the service in the cloud. Compute hardware costs and data center security costs will be rolled in the service cost in the cloud so you need to include them in the model so you can really understand the true TCO on-premise vs. the cloud.

Firewall management, application licensing and operating system patching need to be paid for on-premise and in the cloud so there is little difference.

CORRECT: "Compute hardware" is a correct answer.

CORRECT: "Compute hardware" is also a correct answer.

INCORRECT: "Firewall management" is incorrect as explained above.

INCORRECT: "Application licensing" is incorrect as explained above.

INCORRECT: "Operating system patching" is incorrect as explained above.

References:

https://media.amazonwebservices.com/AWS_TCO_Web_Applications.pdf

Question 6:

How can you apply metadata to an EC2 instance that categorizes it according to its purpose, owner or environment?

1. Stickers
2. Hostname
3. Tags
4. Labels

Correct Answer(s): 3

Explanation:

A tag is a label that you assign to an AWS resource. Each tag consists of a key and an optional value, both of which you define. Tags enable you to categorize your AWS resources in different ways, for example, by purpose, owner, or environment

CORRECT: "Tags" is the correct answer.

INCORRECT: "Labels" is incorrect as this is not something you can assign to an AWS resource.

INCORRECT: "Hostname" is incorrect as you cannot use hostnames to categorize EC2 instances. Use tags instead.

INCORRECT: "Stickers" is incorrect as this is not something you can assign to an AWS resource.

References:

https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/Using_Tags.html

https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/Using_Tags.html

Question 7:

Which of the following security operations tasks must be performed by AWS customers? (Select TWO.)

1. Enabling multi-factor authentication (MFA) for privileged users
2. Issuing data center access keycards
3. Installing security updates on EC2 instances
4. Collecting syslog messages from physical firewalls
5. Installing security updates for server firmware

Correct Answer(s): 1, 3

Explanation:

The customer is responsible for installing security updates on EC2 instances and enabling MFA. AWS is responsible for security of the physical data center and the infrastructure upon which customer services run.

CORRECT: "Installing security updates on EC2 instances" is a correct answer.

CORRECT: "Enabling multi-factor authentication (MFA) for privileged users" is also a correct answer.

INCORRECT: "Collecting syslog messages from physical firewalls" is incorrect as this is an AWS responsibility.

INCORRECT: "Issuing data center access keycards" is incorrect as this is an AWS responsibility.

INCORRECT: "Installing security updates for server firmware" is incorrect as this is an AWS responsibility.

References:

<https://aws.amazon.com/compliance/shared-responsibility-model/>

Question 8:

A new user is unable to access any AWS services, what is the most likely Correct Answer(s):

Explanation: ?

1. The default limit for user logons has been reached
2. The services are currently unavailable
3. The user needs to login with a key pair
4. By default new users are created without access to any AWS services

Correct Answer(s): 4

Explanation:

By default new users are created with NO access to any AWS services – they can only login to the AWS console. You must apply permissions to users to allow them to access services.

The recommended way to do this is to organize users into groups and then apply permissions policies to the group.

CORRECT: "By default new users are created without access to any AWS services" is the correct answer.

INCORRECT: "The user needs to login with a key pair" is incorrect. Key pairs are used for programmatic access using the API so they are required for API access only.

INCORRECT: "The services are currently unavailable" is incorrect as it is far more likely that the user just doesn't have permissions.

INCORRECT: "The default limit for user logons has been reached" is incorrect as there is no limit for user logons.

References:

https://docs.aws.amazon.com/IAM/latest/UserGuide/id_users_create.html

Question 9:

You need to ensure you have the right amount of compute available to service demand. Which AWS service can automatically scale the number of EC2 instances for your application?

1. Amazon ElastiCache
2. Amazon Elastic Load Balancer
3. Amazon EC2 Auto Scaling
4. Amazon RedShift

Correct Answer(s): 3

Explanation:

Auto Scaling automates the process of adding (scaling up) OR removing (scaling down) EC2 instances based on the traffic demand for your application.

CORRECT: "Amazon EC2 Auto Scaling" is the correct answer.

INCORRECT: "Amazon Elastic Load Balancer" is incorrect. ELB automatically distributes incoming application traffic across multiple targets, such as Amazon EC2 instances, containers, and IP addresses.

INCORRECT: "Amazon ElastiCache" is incorrect. Amazon ElastiCache offers fully managed Redis and Memcached database services.

INCORRECT: "Amazon RedShift" is incorrect. Amazon Redshift is a fast, scalable data warehouse that makes it simple and cost-effective to analyze all your data across your data warehouse and data lake.

References:

<https://aws.amazon.com/ec2/autoscaling/>

Question 10:

What can a Cloud Practitioner use the AWS Total Cost of Ownership (TCO) Calculator for?

1. Enable billing alerts to monitor actual AWS costs compared to estimated costs
2. Estimate a monthly bill for the AWS Cloud resources that will be used
3. Generate reports that break down AWS Cloud compute costs by duration, resource, or tags
4. Estimate savings when comparing the AWS Cloud to an on-premises environment

Correct Answer(s): 4

Explanation:

The TCO calculators allow you to estimate the cost savings when using AWS, compared to on-premises, and provide a detailed set of reports that can be used in executive presentations. The calculators also give you the option to modify assumptions that best meet your business needs.

CORRECT: "Estimate savings when comparing the AWS Cloud to an on-premises environment" is the correct answer.

INCORRECT: "Generate reports that break down AWS Cloud compute costs by duration, resource, or tags" is incorrect. This describes the AWS Cost & Usage Report.

INCORRECT: "Estimate a monthly bill for the AWS Cloud resources that will be used" is incorrect. This describes the AWS Pricing Calculator (or Simple Monthly Calculator).

INCORRECT: "Enable billing alerts to monitor actual AWS costs compared to estimated costs" is incorrect. Billing alerts can be enabled using Amazon CloudWatch.

References:

<https://aws.amazon.com/tco-calculator/>

Question 11:

What are two ways an AWS customer can reduce their monthly spend? (Select TWO.)

1. Reduce the amount of data ingress charges
2. Reserve capacity where suitable
3. Use more power efficient instance types
4. Turn off resources that are not being used
5. Be efficient with usage of Security Groups

Correct Answer(s): 2, 4

Explanation:

Turning off resources that are not used can reduce spend. You can also use reserved capacity to reduce the monthly spend at the expense of having to lock into a 1 or 3-year contract – good for stable workloads.

CORRECT: "Turn off resources that are not being used" is a correct answer.

CORRECT: "Reserve capacity where suitable" is also a correct answer.

INCORRECT: "Use more power efficient instance types" is incorrect as you do not pay for power on AWS.

INCORRECT: "Be efficient with usage of Security Groups" is incorrect as you do not pay for security groups on AWS.

INCORRECT: "Reduce the amount of data ingress charges" is incorrect as in most cases you do not pay for data ingress.

References:

<https://aws.amazon.com/pricing/>

Question 12:

Which of the following services does Amazon Route 53 provide? (Select TWO.)

1. Domain Name Service (DNS)
2. Load balancing
3. Auto Scaling
4. Route tables
5. Domain registration

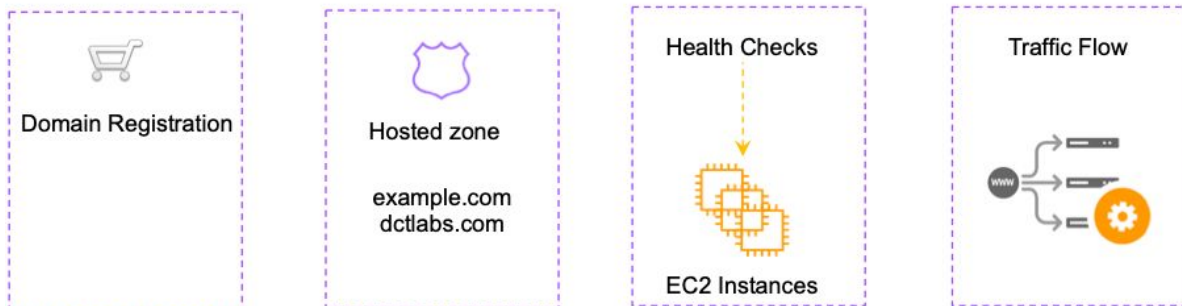
Correct Answer(s): 1, 5

Explanation:

Amazon Route 53 services include domain registration, DNS, health checking (availability monitoring) and traffic management.



Amazon Route 53



CORRECT: "Domain registration" is a correct answer.

CORRECT: "Domain Name Service (DNS)" is also a correct answer.

INCORRECT: "Route tables" is incorrect as this is not provided by Route 53.

INCORRECT: "Auto Scaling" is incorrect as this is not provided by Route 53.

INCORRECT: "Load balancing" is incorrect as this is not provided by Route 53.

References:

<https://aws.amazon.com/route53/>

Question 13:

Which AWS network element allows you to assign a static IPv4 address to an EC2 instance?

1. Elastic IP
2. Public IP
3. Static IP
4. Dynamic IP

Correct Answer(s): 1

Explanation:

An Elastic IP address is a static IPv4 address designed for dynamic cloud computing. An Elastic IP address is associated with your AWS account. With an Elastic IP address, you can mask the failure of an instance or software by rapidly remapping the address to another instance in your account.

| Name | Description |
|--------------------|---|
| Public IP address | <p>Lost when the instance is stopped</p> <p>Used in Public Subnets</p> <p>No charge</p> <p>Associated with a private IP address on the instance</p> <p>Cannot be moved between instances</p> |
| Private IP address | <p>Retained when the instance is stopped</p> <p>Used in Public and Private Subnets</p> |
| Elastic IP address | <p>Static Public IP address</p> <p>You are charged if not used</p> <p>Associated with a private IP address on the instance</p> <p>Can be moved between instances and Elastic Network Adapters</p> |

CORRECT: "Elastic IP" is the correct answer.

INCORRECT: "Public IP" is incorrect. An Elastic IP is a public IP. However, in the AWS cloud an elastic IP is the construct used to assign a public IP to an EC2 instance.

INCORRECT: "Static IP" is incorrect. A static IP is an IP address (public or private) that is statically defined.

INCORRECT: "Dynamic IP" is incorrect. A dynamic IP is an IP address (public or private) that is dynamically obtained (through DHCP).

References:

<https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/elastic-ip-addresses-eip.html>

Question 14:

An application has highly dynamic usage patterns. Which characteristics of the AWS Cloud make it cost-effective for this type of workload? (Select TWO.)

1. Elasticity
2. Strict security
3. Pay-as-you-go pricing

4. High availability
5. Reliability

Correct Answer(s): 1, 3

Explanation:

AWS is a cost-effective for dynamic workloads because it is elastic, meaning your workload can scale based on demand. And because you only pay for what you use (pay-as-you-go pricing).

CORRECT: "Elasticity" is the correct answer.

CORRECT: "Pay-as-you-go pricing" is the correct answer.

INCORRECT: "High availability" is incorrect. This is not a characteristic that results in cost-effectiveness.

INCORRECT: "Strict security" is incorrect. This is not a characteristic that results in cost-effectiveness.

INCORRECT: "Reliability" is incorrect. This is not a characteristic that results in cost-effectiveness.

References:

<https://aws.amazon.com/architecture/>

Question 15:

A Cloud Practitioner wants to build an application stack that will be highly elastic. What AWS services can be used that don't require you to make any capacity decisions upfront? (Select TWO.)

1. Amazon RDS
2. Amazon DynamoDB Provisioned mode
3. Amazon EC2
4. Amazon S3
5. AWS Lambda

Correct Answer(s): 4, 5

Explanation:

With Amazon S3 you don't need to specify any capacity at any time, the service scales in both capacity and performance as required.

AWS Lambda lets you run code without provisioning or managing servers. You pay only for the compute time you consume – there is no charge when your code is not running.

CORRECT: "AWS Lambda" is a correct answer.

CORRECT: "Amazon S3" is also a correct answer.

INCORRECT: "Amazon EC2" is incorrect. With Amazon EC2 you need to select your instance sizes and number of instances.

INCORRECT: "Amazon RDS" is incorrect. With RDS you need to select the instance size for the DB.

INCORRECT: "Amazon DynamoDB" is incorrect. With DynamoDB provisioned mode you need to specify the read/write capacity of the DB. On-demand mode does allow elasticity, as does DynamoDB Auto Scaling but these are not offered as options.

References:

<https://aws.amazon.com/lambda/pricing/>

<https://aws.amazon.com/s3/pricing/>

Question 16:

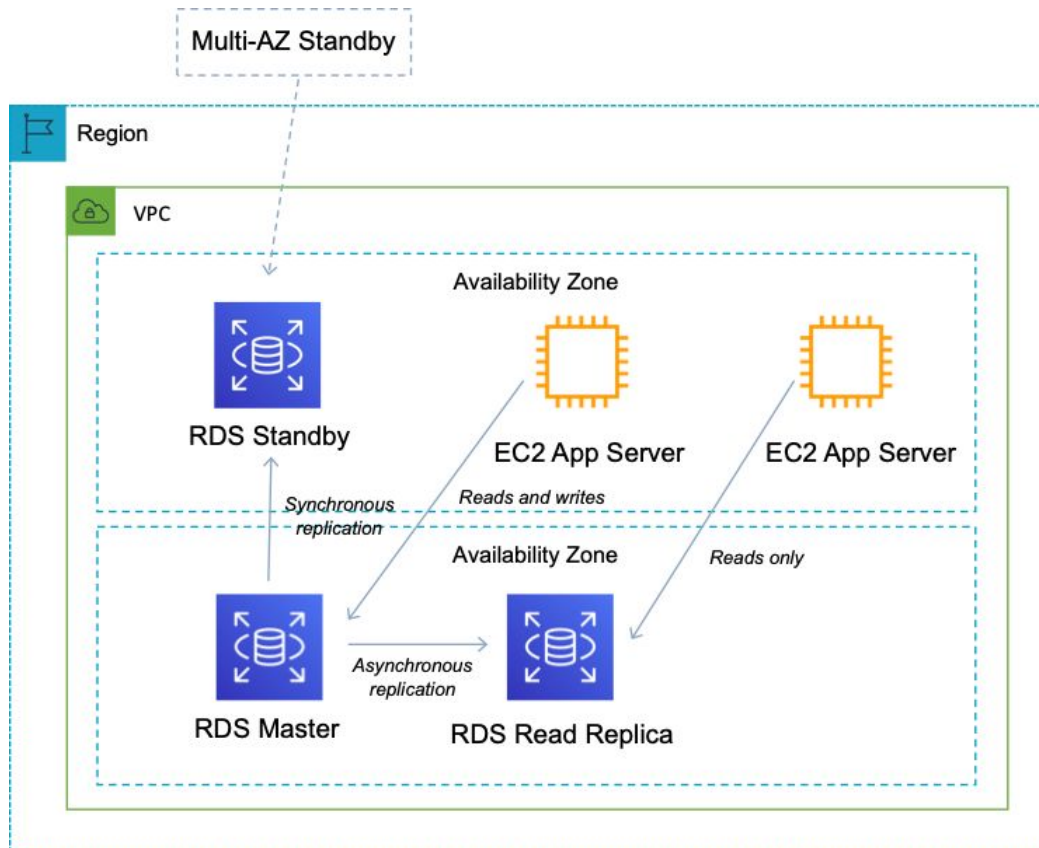
What features does Amazon RDS provide to deliver scalability, availability and durability? (Select TWO.)

1. Clustering
2. Multi-Subnet
3. Read Replicas
4. DB mirroring
5. Multi-AZ

Correct Answer(s): 3, 5

Explanation:

Multi-AZ RDS creates a replica in another AZ and synchronously replicates to it (DR only). Read replicas are used for read heavy DBs and replication is asynchronous. With a read replica you direct your database queries to the read replica and this offloads pressure from the main database.



CORRECT: "Multi-AZ" is a correct answer.

CORRECT: "Read Replicas" is also a correct answer.

INCORRECT: "DB mirroring" is incorrect as it is not offered by RDS.

INCORRECT: "Clustering" is incorrect as this is not offered by RDS.

INCORRECT: "Multi-Subnet" is incorrect as this is not offered by RDS.

References:

<https://aws.amazon.com/rds/>

Question 17:

Which services are managed at a regional (rather than global) level? (Select TWO.)

1. Amazon Route 53
2. Amazon S3
3. Amazon CloudFront
4. AWS IAM
5. Amazon EC2

Correct Answer(s): 2, 5

Explanation:

Both Amazon EC2 and Amazon S3 are managed at a regional level. Note: Amazon S3 is a global namespace but you still create your buckets within a region. Amazon CloudFront, Amazon Route 53 and AWS IAM are managed at a global level.

CORRECT: "Amazon S3" is a correct answer.

CORRECT: "Amazon EC2" is also a correct answer.

INCORRECT: "Amazon CloudFront" is incorrect as it is a global service.

INCORRECT: "Amazon Route 53" is incorrect as it is a global service.

INCORRECT: "AWS IAM" is incorrect as it is a global service.

References:

<https://aws.amazon.com/about-aws/global-infrastructure/regional-product-services/>

Question 18:

Which AWS service or feature allows a company to receive a single monthly AWS bill when using multiple AWS accounts?

1. Consolidated billing
2. Amazon Cloud Directory
3. AWS Cost and Usage report
4. AWS Cost Explorer

Correct Answer(s): 1

Explanation:

You can use the consolidated billing feature in AWS Organizations to consolidate billing and payment for multiple AWS accounts or multiple Amazon Internet Services Pvt. Ltd (AISPL) accounts. Every organization in AWS Organizations has a master (payer) account that pays the charges of all the member (linked) accounts.

Consolidated billing has the following benefits:

- One bill – You get one bill for multiple accounts.
- Easy tracking – You can track the charges across multiple accounts and download the combined cost and usage data.
- Combined usage – You can combine the usage across all accounts in the organization to share the volume pricing discounts, Reserved Instance discounts, and Savings Plans. This can result in a lower charge for your project, department, or company than with individual standalone accounts.
- No extra fee – Consolidated billing is offered at no additional cost.

CORRECT: "Consolidated billing" is the correct answer.

INCORRECT: "Amazon Cloud Directory" is incorrect. Cloud Directory is used for creating cloud-native directories. This is not related to billing.

INCORRECT: "AWS Cost Explorer" is incorrect. AWS Cost Explorer has an easy-to-use interface that lets you visualize, understand, and manage your AWS costs and usage over time. It does not centralize billing.

INCORRECT: "AWS Cost and Usage report" is incorrect. The AWS Cost & Usage Report lists AWS usage for each service category used by an account and its IAM users in hourly or daily line items, as well as any tags that you have activated for cost allocation purposes.

References:

<https://docs.aws.amazon.com/awsaccountbilling/latest/aboutv2/consolidated-billing.html>

Question 19:

Which AWS service provides elastic web-scale cloud computing allowing you to deploy operating system instances?

1. Amazon RDS
2. Amazon EC2
3. Amazon EBS
4. AWS Lambda

Correct Answer(s): 2

Explanation:

The Amazon Elastic Compute Cloud (EC2) provides elastic web-scale computing in the cloud allowing you to deploy instances running the Windows and Linux operating systems.

CORRECT: "Amazon EC2" is the correct answer.

INCORRECT: "Amazon EBS" is incorrect. Amazon Elastic Block Store (Amazon EBS) provides persistent block storage volumes for use with Amazon EC2 instances in the AWS Cloud.

INCORRECT: "AWS Lambda" is incorrect. AWS Lambda lets you run code without provisioning or managing server operating systems.

INCORRECT: "Amazon RDS" is incorrect. Amazon Relational Database Service (Amazon RDS) makes it easy to set up, operate, and scale a relational database in the cloud.

References:

<https://aws.amazon.com/ec2/>

Question 20:

Which services are involved with security? (Select TWO.)

1. AWS DMS
2. AWS KMS
3. AWS CloudHSM
4. AWS SMS
5. Amazon ELB

Correct Answer(s): 2, 3

Explanation:

AWS Key Management Service (KMS) gives you centralized control over the encryption keys used to protect your data. AWS CloudHSM is a cloud-based hardware security module (HSM) that enables you to easily generate and use your own encryption keys on the AWS Cloud.

CORRECT: "AWS CloudHSM" is a correct answer.

CORRECT: "AWS KMS" is also a correct answer.

INCORRECT: "AWS DMS" is incorrect. AWS Database Migration Service is used for migration of databases.

INCORRECT: "AWS SMS" is incorrect. AWS Server Migration Service is used for migration of virtual machines.

INCORRECT: "Amazon ELB" is incorrect. Amazon Elastic Load Balancing is used for distributing incoming connections to pools of EC2 instances

References:

<https://aws.amazon.com/cloudhsm/>

<https://aws.amazon.com/kms/>

Question 21:

Which AWS support plans provide support via email, chat and phone? (Select TWO.)

1. Business
2. Basic
3. Developer
4. Global
5. Enterprise

Correct Answer(s): 1, 5

Explanation:

Only the business and enterprise plans provide support via email, chat and phone.

CORRECT: "Business" is the correct answer.

CORRECT: "Enterprise" is the correct answer.

INCORRECT: "Basic" is incorrect does not provide support via email, chat and phone.

INCORRECT: "Developer" is incorrect only provides email support.

INCORRECT: "Global" is incorrect is not a support plan offered by AWS.

References:

<https://aws.amazon.com/premiumsupport/plans/>

Question 22:

Which of the following are AWS recommended best practices in relation to IAM? (Select TWO.)

1. Grant greatest privilege
2. Assign permissions to users
3. Create individual IAM users
4. Enable MFA for all users
5. Embed access keys in application code

Correct Answer(s): 3, 4

Explanation:

AWS recommends that you create individual IAM users rather than sharing IAM user accounts.

For extra security, AWS recommends that you require multi-factor authentication (MFA) for all users in your account. For privileged IAM users who are allowed to access sensitive resources or API operations, AWS recommend using U2F or hardware MFA devices.

CORRECT: "Create individual IAM users" is the correct answer.

CORRECT: "Enable MFA for all users" is the correct answer.

INCORRECT: "Assign permissions to users" is incorrect. You should use groups to assign permissions to IAM users and should avoid embedding access keys in application code.

INCORRECT: "Embed access keys in application code" is incorrect as this is against best practice as it is highly insecure.

INCORRECT: "Grant greatest privilege" is incorrect. AWS recommend creating individual IAM users and assigning the least privilege necessary for them to perform their role.

References:

<https://docs.aws.amazon.com/IAM/latest/UserGuide/best-practices.html>

Question 23:

A manager needs to keep a check on his AWS spend. How can the manager setup alarms that notify him when his bill reaches a certain amount?

1. Using Amazon CloudWatch
2. Using AWS CloudTrail
3. By notifying AWS support
4. Using AWS Trusted Advisor

Correct Answer(s): 1

Explanation:

The best ways to do this is to use CloudWatch to configure alarms that deliver a notification when activated. The alarms can use cost metrics that trigger the alarm when a certain amount of spend has been reached

CORRECT: "Using Amazon CloudWatch" is the correct answer.

INCORRECT: "Using AWS Trusted Advisor" is incorrect as this service is focused on providing guidance for provisioning resources following AWS best practices.

INCORRECT: "Using AWS CloudTrail" is incorrect as this service is used for auditing API activity.

INCORRECT: "By notifying AWS support" is incorrect as you don't need assistance from AWS support to do this.

References:

https://docs.aws.amazon.com/AmazonCloudWatch/latest/monitoring/monitor_estimated_charges_with_cloudwatch.html

Question 24:

Which AWS service should a Cloud Practitioner use to automate configuration management using Puppet?

1. AWS OpsWorks
2. AWS CloudFormation
3. AWS Systems Manager
4. AWS Config

Correct Answer(s): 1

Explanation:

AWS OpsWorks is a configuration management service that provides managed instances of Chef and Puppet. Chef and Puppet are automation platforms that allow you to use code to automate the configurations of your servers.

OpsWorks lets you use Chef and Puppet to automate how servers are configured, deployed, and managed across your Amazon EC2 instances or on-premises compute environments,

CORRECT: "AWS OpsWorks" is the correct answer.

INCORRECT: "AWS Config" is incorrect. AWS Config is a service that enables you to assess, audit, and evaluate the configurations of your AWS resources.

INCORRECT: "AWS CloudFormation" is incorrect. AWS CloudFormation provides a common language for you to model and provision AWS and third party application resources in your cloud environment.

INCORRECT: "AWS Systems Manager" is incorrect. AWS Systems Manager gives you visibility and control of your infrastructure on AWS. Systems Manager 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.

References:

<https://aws.amazon.com/opsworks/>

Question 25:

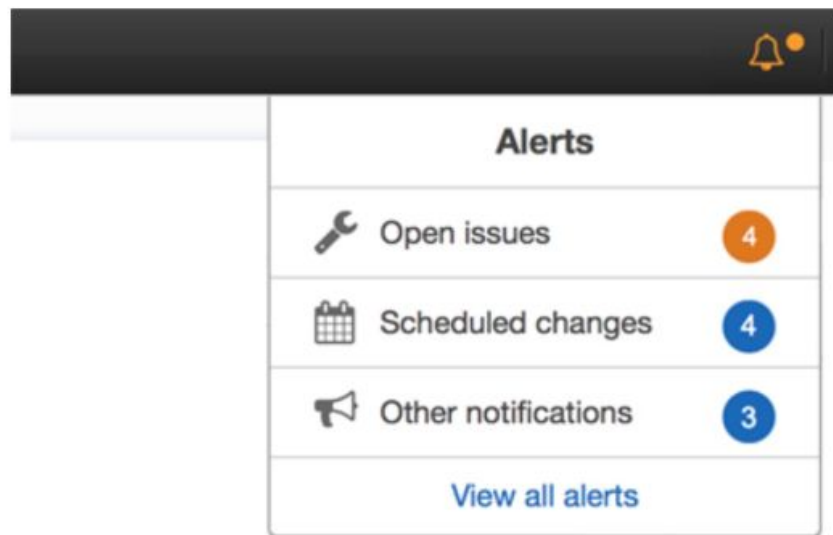
Which AWS dashboard displays relevant and timely information to help users manage events in progress, and provides proactive notifications to help plan for scheduled activities?

1. AWS Personal Health Dashboard
2. Amazon CloudWatch dashboard
3. AWS Service Health Dashboard
4. AWS Trusted Advisor dashboard

Correct Answer(s): 1

Explanation:

AWS Personal Health Dashboard provides alerts and remediation guidance when AWS is experiencing events that may impact you. While the Service Health Dashboard displays the general status of AWS services, Personal Health Dashboard gives you a personalized view into the performance and availability of the AWS services underlying your AWS resources.



The dashboard displays relevant and timely information to help you manage events in progress, and provides proactive notification to help you plan for scheduled activities. With Personal Health Dashboard, alerts are triggered by changes in the health of AWS resources, giving you event visibility, and guidance to help quickly diagnose and resolve issues.

CORRECT: "AWS Personal Health Dashboard" is the correct answer.

INCORRECT: "AWS Service Health Dashboard" is incorrect. This shows the current status of services across regions. However, it does not provide proactive notifications of scheduled activities or guidance of any kind.

INCORRECT: "AWS Trusted Advisor dashboard" is incorrect. AWS Trusted Advisor is an online tool that provides you real time guidance to help you provision your resources following AWS best practices.

INCORRECT: "Amazon CloudWatch dashboard" is incorrect as this service is used for monitoring performance related information for your infrastructure and resources, not the underlying AWS resources.

References:

<https://aws.amazon.com/premiumsupport/technology/personal-health-dashboard/>

Question 26:

What are the benefits of using the AWS Managed Services? (Select TWO.)

1. Alignment with ITIL processes
2. Support for all AWS services
3. Designed for small businesses
4. Baseline integration with ITSM tools
5. Managed applications so you can focus on infrastructure

Correct Answer(s): 1, 4

Explanation:

AWS Managed Services manages the daily operations of your AWS infrastructure in alignment with ITIL processes. AWS Managed Services provides a baseline integration with IT Service Management (ITSM) tools such as the ServiceNow platform.

AWS Managed Services provides ongoing management of your AWS infrastructure so you can focus on your applications. By implementing best practices to maintain your infrastructure, AWS Managed Services helps to reduce your operational overhead and risk.

AWS Managed Services currently supports the 20+ services most critical for Enterprises, and will continue to expand our list of integrated AWS services.

AWS Managed Services is designed to meet the needs of Enterprises that require stringent SLAs, adherence to corporate compliance, and integration with their systems and ITIL®-based processes.

CORRECT: "Alignment with ITIL processes" is a correct answer.

CORRECT: "Baseline integration with ITSM tools" is also a correct answer.

INCORRECT: "Managed applications so you can focus on infrastructure" is incorrect as this is not offered by AWS Managed Services.

INCORRECT: "Designed for small businesses" is incorrect as the service is designed for enterprises.

INCORRECT: "Support for all AWS services" is incorrect as the service does not support all AWS services.

References:

<https://aws.amazon.com/managed-services/>

Question 27:

Which benefits can a company immediately realize using the AWS Cloud?
(Select TWO.)

1. Capital expenses are replaced with variable expenses
2. No responsibility for security
3. Variable expenses are replaced with capital expenses
4. User control of physical infrastructure
5. Increased agility

Correct Answer(s): 1, 5

Explanation:

A couple of the benefits that companies will realize immediately when using the AWS Cloud are increased agility and a change from capital expenditure to variable operational expenditure.

Agility is enabled through the flexibility of cloud services and the ease with which applications can be deployed, scaled, and managed. When using cloud services you pay for what you use and this is a variable, operational expense which can be beneficial to company cashflow.

CORRECT: "Capital expenses are replaced with variable expenses" is a correct answer.

CORRECT: "Increased agility" is also a correct answer.

INCORRECT: "Variable expenses are replaced with capital expenses" is incorrect. This is the wrong way around, capital expenses are replaced with variable expenses.

INCORRECT: "User control of physical infrastructure" is incorrect. This is not true, you do not get control of the physical infrastructure.

INCORRECT: "No responsibility for security" is incorrect. This is not true, you are still responsible for "security in the cloud".

References:

<https://docs.aws.amazon.com/whitepapers/latest/aws-overview/six-advantages-of-cloud-computing.html>

Question 28:

Which of the following should be used to improve the security of access to the AWS Management Console? (Select TWO.)

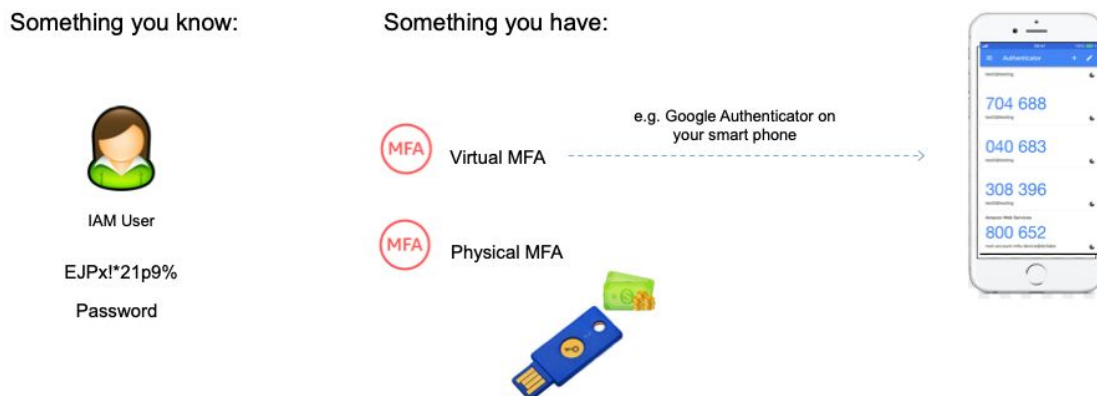
1. Security group rules
2. AWS Multi-Factor Authentication (AWS MFA)
3. Strong password policies
4. AWS Secrets Manager
5. AWS Certificate Manager

Correct Answer(s): 2, 3

Explanation:

For extra security, AWS recommends that you require multi-factor authentication (MFA) for all users in your account. With MFA, users have a device that generates a response to an authentication challenge.

Both the user's credentials (something you know) and the device-generated response (something you have) are required to complete the sign-in process. If a user's password or access keys are compromised, your account resources are still secure because of the additional authentication requirement.



Additionally, strong password policies should be used to enforce measures including minimum password length, complexity, and password reuse restrictions.

CORRECT: "AWS Multi-Factor Authentication (AWS MFA)" is a correct answer.

CORRECT: "Strong password policies" is also a correct answer.

INCORRECT: "AWS Secrets Manager" is incorrect. This service enables you to easily rotate, manage, and retrieve database credentials, API keys, and other secrets throughout their lifecycle.

INCORRECT: "AWS Certificate Manager" is incorrect. This service is used for creating SSL/TLS certificates for use with HTTPS connections.

INCORRECT: "Security group rules" is incorrect as these are used to restrict traffic to/from your EC2 instances.

References:

<https://docs.aws.amazon.com/IAM/latest/UserGuide/best-practices.html>

Question 29:

Which statements are true about Amazon EBS volumes? (Select TWO.)

1. You can attach EBS volumes to multiple instances
2. You can attach multiple EBS volumes to an instance
3. EBS volume data is ephemeral and is lost when an instance is stopped
4. EBS volumes must be in the same AZ as the instances they are attached to
5. EBS volumes are object storage

Correct Answer(s): 2, 4

Explanation:

Amazon EBS volumes are used by EC2 instances for persistent storage. EBS volumes must be in the same AZ as the instances they are attached to and you can attach multiple EBS volumes to an instance.

CORRECT: "EBS volumes must be in the same AZ as the instances they are attached to" is the correct answer.

CORRECT: "You can attach multiple EBS volumes to an instance" is the correct answer.

INCORRECT: "You can attach EBS volumes to multiple instances" is incorrect. You cannot attach an EBS volume to multiple instances (use Elastic File Store instead).

INCORRECT: "EBS volume data is ephemeral and is lost when an instance is stopped" is incorrect. EBS volume data persists independently of the life of the instance.

INCORRECT: "EBS volumes are object storage" is incorrect as EBS volumes are block storage devices.

References:

<https://aws.amazon.com/ebs/>

Question 30:

A company has an application with users in both Australia and Germany. All the company infrastructure is currently provisioned in the Europe (Frankfurt) Region, and Australian users are experiencing high latency.

What should the company do to reduce latency?

1. Launch additional Amazon EC2 instances in Frankfurt to handle the demand
2. Use AWS Transit Gateway to quickly route users from Australia to the application
3. Implement AWS Direct Connect for users in Australia
4. Provision resources in the Asia Pacific (Sydney) Region in Australia

Correct Answer(s): 4

Explanation:

Latency (slow response times) is experienced when resources are far away. Distance is the single biggest factor that causes latency. The easiest option presented to resolve this situation is to place resources closer to where the users are.

CORRECT: "Provision resources in the Asia Pacific (Sydney) Region in Australia" is the correct answer.

INCORRECT: "Implement AWS Direct Connect for users in Australia" is incorrect. Direct Connect is a private network connection from your network or data center into a nearby AWS Region. This does not solve the latency issues.

INCORRECT: "Use AWS Transit Gateway to quickly route users from Australia to the application" is incorrect. This service is used to connect Amazon Virtual Private Clouds (VPCs) and on-premises networks to a single gateway for connecting multiple VPCs and on-premises networks. This does not solve the latency issues.

INCORRECT: "Launch additional Amazon EC2 instances in Frankfurt to handle the demand" is incorrect. Latency will still be an issue even with more resources in Frankfurt.

References:

<https://aws.amazon.com/architecture/>

Question 31:

Which of the following best describes an Availability Zone in the AWS Cloud?

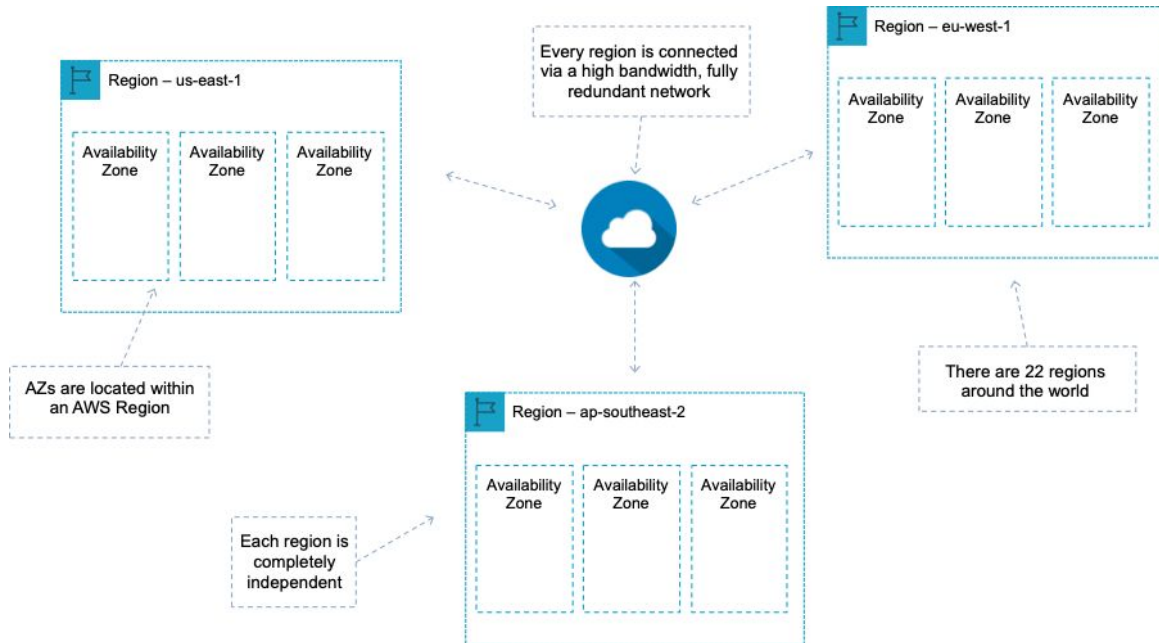
1. One or more edge locations based around the world
2. A completely isolated geographic location
3. One or more physical data centers
4. A subnet for deploying resources into

Correct Answer(s): 3

Explanation:

An Availability Zone (AZ) is one or more discrete data centers with redundant power, networking, and connectivity in an AWS Region. AZ's give customers the ability to operate production applications and databases that are more highly available, fault tolerant, and scalable than would be possible from a single data center.

The diagram below shows how AZs relate to AWS Regions:



CORRECT: "One or more physical data centers" is the correct answer.

INCORRECT: "A completely isolated geographic location" is incorrect. This is a description of an AWS Region.

INCORRECT: "One or more edge locations based around the world" is incorrect. Edge locations are used by Amazon CloudFront for caching content.

INCORRECT: "A subnet for deploying resources into" is incorrect. Subnets are created within AZs.

References:

https://aws.amazon.com/about-aws/global-infrastructure/regions_az/

Question 32:

An architect wants to find a tool for consistently deploying the same resources through a templated configuration. Which AWS service can be used?

1. AWS CloudFormation
2. AWS Elastic Beanstalk
3. AWS CodeBuild

4. AWS CodeDeploy

Correct Answer(s): 1

Explanation:

AWS CloudFormation provides a common language for you to describe and provision all the infrastructure resources in your cloud environment.

CloudFormation allows you to use a simple text file to model and provision, in an automated and secure manner, all the resources needed for your applications across all regions and accounts.

CORRECT: "AWS CloudFormation" is the correct answer.

INCORRECT: "AWS Elastic Beanstalk" is incorrect. AWS Elastic Beanstalk is used for running applications in a managed environment. It is not used for deploying templated configurations.

INCORRECT: "AWS CodeBuild" is incorrect. AWS CodeBuild is a fully managed continuous integration service that compiles source code, runs tests, and produces software packages that are ready to deploy.

INCORRECT: "AWS CodeDeploy" is incorrect. AWS CodeDeploy is a fully managed deployment service that automates software deployments to a variety of compute services such as Amazon EC2, AWS Lambda, and on-premises servers. It does not use a templated configuration for deployment.

References:

<https://aws.amazon.com/cloudformation/>

Question 33:

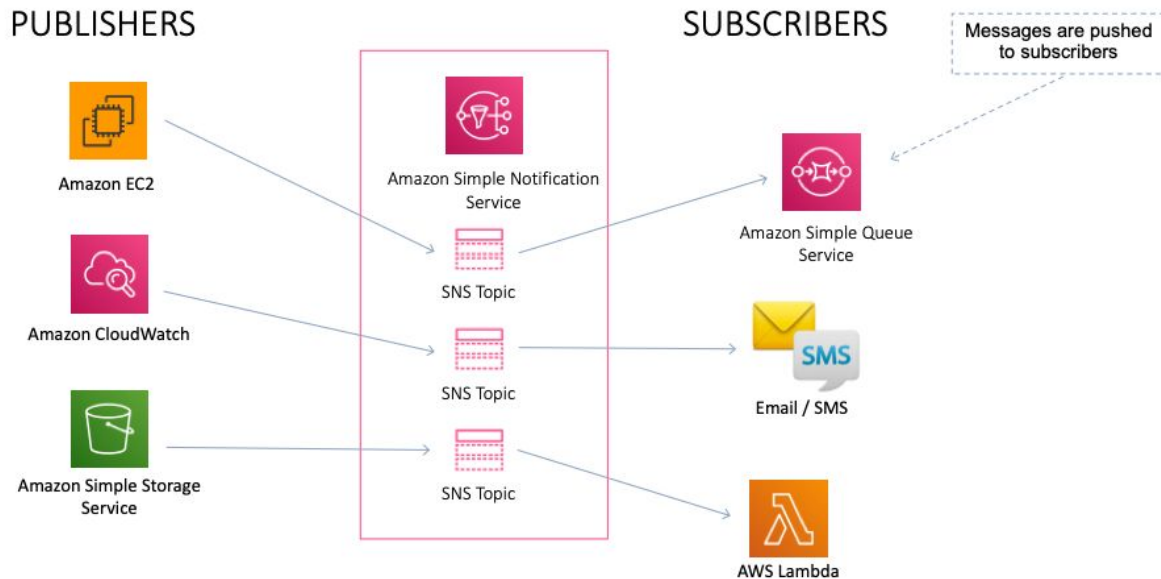
Which AWS service is used to send both text and email messages from distributed applications?

1. Amazon Simple Email Service (Amazon SES)
2. Amazon Simple Notification Service (Amazon SNS)
3. Amazon Simple Workflow Service (Amazon SWF)
4. Amazon Simple Queue Service (Amazon SQS)

Correct Answer(s): 2

Explanation:

Amazon Simple Notification Service (SNS) is a highly available, durable, secure, fully managed pub/sub messaging service that enables you to decouple microservices, distributed systems, and serverless applications.



Amazon SNS provides topics for high-throughput, push-based, many-to-many messaging. Using Amazon SNS topics, your publisher systems can fan out messages to a large number of subscriber endpoints for parallel processing, including Amazon SQS queues, AWS Lambda functions, and HTTP/S webhooks.

Additionally, SNS can be used to fan out notifications to end users using mobile push, SMS, and email.

CORRECT: "Amazon Simple Notification Service (Amazon SNS)" is the correct answer.

INCORRECT: "Amazon Simple Email Service (Amazon SES)" is incorrect. This service is used for sending email but not SMS text messages.

INCORRECT: "Amazon Simple Workflow Service (Amazon SWF)" is incorrect. Amazon SWF helps developers build, run, and scale background

jobs that have parallel or sequential steps. You can think of Amazon SWF as a fully-managed state tracker and task coordinator in the Cloud.

INCORRECT: "Amazon Simple Queue Service (Amazon SQS)" is incorrect. Amazon Simple Queue Service (SQS) is a fully managed message queuing service that enables you to decouple and scale microservices, distributed systems, and serverless applications.

References:

<https://aws.amazon.com/sns/>

Question 34:

Which tool can be used to create and manage a selection of AWS services that are approved for use on AWS?

1. Amazon Cloud Directory
2. AWS OpsWorks
3. AWS Organizations
4. AWS Service Catalog

Correct Answer(s): 4

Explanation:

AWS Service Catalog allows organizations to create and manage catalogs of IT services that are approved for use on AWS. These IT services can include everything from virtual machine images, servers, software, and databases to complete multi-tier application architectures

CORRECT: "AWS Service Catalog" is the correct answer.

INCORRECT: "AWS OpsWorks" is incorrect. AWS OpsWorks is a configuration management service that provides managed instances of Chef and Puppet.

INCORRECT: "Amazon Cloud Directory" is incorrect. Amazon Cloud Directory enables you to build flexible cloud-native directories for organizing hierarchies of data along multiple dimensions.

INCORRECT: "AWS Organizations" is incorrect. AWS Organizations offers policy-based management for multiple AWS accounts

References:

<https://aws.amazon.com/servicecatalog/>

Question 35:

Which AWS services can be utilized at no cost? (Select TWO.)

1. Amazon S3
2. Amazon RedShift
3. Amazon CloudFront
4. Identity and Access Management (IAM)
5. Amazon VPC

Correct Answer(s): 4, 5

Explanation:

AWS offer many services without charge. These include the AWS IAM services for creating users, groups, roles and policies and the Amazon VPC service for creating virtual private clouds, subnets, route tables etc.

CORRECT: "Identity and Access Management (IAM)" is a correct answer.

CORRECT: "Amazon VPC" is also a correct answer.

INCORRECT: "Amazon S3" is incorrect as you must pay for this service.

INCORRECT: "Amazon CloudFront" is incorrect as you must pay for this service.

INCORRECT: "Amazon RedShift" is incorrect as you must pay for this service.

References:

<https://aws.amazon.com/pricing/>

Question 36:

How can an organization assess application for vulnerabilities and deviations from best practice?

1. Use AWS WAF
2. Use AWS Shield
3. Use AWS Inspector
4. Use AWS Artifact

Correct Answer(s): 3

Explanation:

Inspector is an automated security assessment service that helps improve the security and compliance of applications deployed on AWS. Inspector automatically assesses applications for vulnerabilities or deviations from best practices.

CORRECT: "Use AWS Inspector" is the correct answer.

INCORRECT: "Use AWS Artifact" is incorrect. AWS Artifact is your go-to, central resource for compliance-related information that matters to you.

INCORRECT: "Use AWS Shield" is incorrect. AWS Shield is a managed Distributed Denial of Service (DDoS) protection service.

INCORRECT: "Use AWS WAF" is incorrect. AWS Web application Firewall (WAF) is a firewall service, it is not used for assessing best practice.

References:

<https://aws.amazon.com/inspector/>

Question 37:

What are the names of two types of AWS Storage Gateway? (Select TWO.)

1. S3 Gateway
2. Block Gateway
3. Cached Gateway
4. Gateway Virtual Tape Library
5. File Gateway

Correct Answer(s): 4, 5

Explanation:

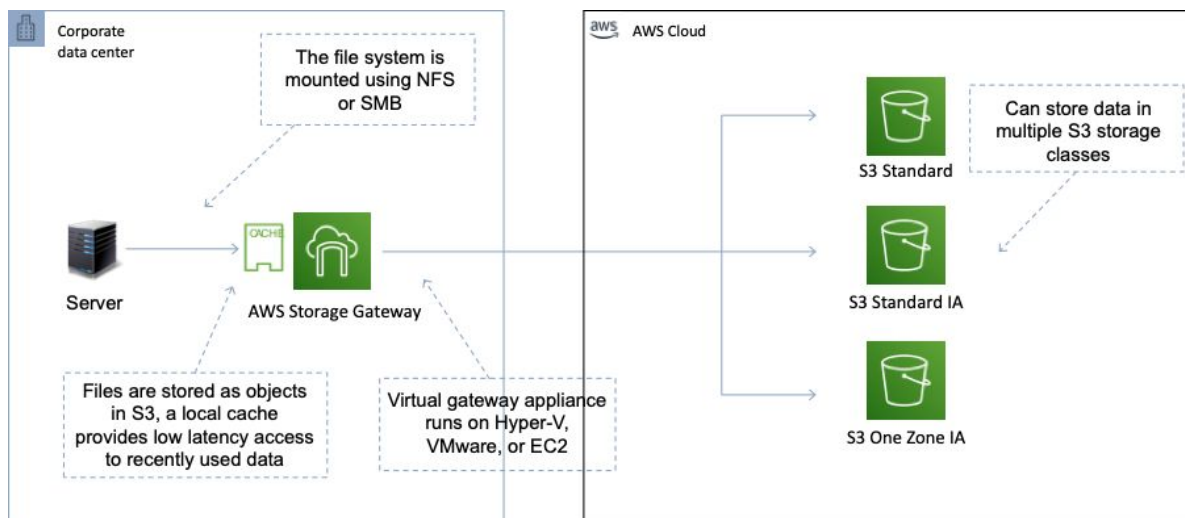
The AWS Storage Gateway service enables hybrid storage between on-premises environments and the AWS Cloud. It provides low-latency performance by caching frequently accessed data on premises, while storing data securely and durably in Amazon cloud storage services. AWS Storage Gateway supports three storage interfaces: file, volume, and tape

File gateway provides a virtual on-premises file server, which enables you to store and retrieve files as objects in Amazon S3

The volume gateway represents the family of gateways that support block-based volumes, previously referred to as gateway-cached and gateway-stored modes

Tape Gateway (formerly known as Gateway Virtual Tape Library) is used for backup with popular backup software.

The diagram below depicts a File Gateway.



All other answers are bogus and use terms that are associated with Storage Gateways (S3, block, cached)

CORRECT: "File Gateway" is a correct answer.

CORRECT: "Tape Gateway" is also a correct answer.

INCORRECT: "S3 Gateway" is incorrect as explained above.

INCORRECT: "Block Gateway" is incorrect as explained above.

INCORRECT: "Cached Gateway" is incorrect as explained above.

References:

<https://aws.amazon.com/storagegateway/>

Question 38:

Which AWS hybrid storage service enables a user's on-premises applications to seamlessly use AWS Cloud storage?

1. AWS Storage Gateway
2. AWS Direct Connect
3. Amazon Connect
4. AWS Backup

Correct Answer(s): 1

Explanation:

AWS Storage Gateway is a hybrid cloud storage service that gives you on-premises access to virtually unlimited cloud storage. Customers use Storage Gateway to simplify storage management and reduce costs for key hybrid cloud storage use cases.

These include moving tape backups to the cloud, reducing on-premises storage with cloud-backed file shares, providing low latency access to data in AWS for on-premises applications, as well as various migration, archiving, processing, and disaster recovery use cases.

CORRECT: "AWS Storage Gateway" is the correct answer.

INCORRECT: "AWS Backup" is incorrect. AWS Backup is a fully managed backup service that makes it easy to centralize and automate the backup of data across AWS services. It is not used for connecting on-premises storage to cloud storage.

INCORRECT: "Amazon Connect" is incorrect. Amazon Connect is an easy to use omnichannel cloud contact center that helps companies provide

superior customer service at a lower cost. It has nothing to do with storing data.

INCORRECT: "AWS Direct Connect" is incorrect. AWS Direct Connect is a cloud service solution that makes it easy to establish a dedicated network connection from your premises to AWS. It is not related to storage of data.

References:

<https://aws.amazon.com/storagegateway/?whats-new-cards.sort-by=item.additionalFields.postDateTime&whats-new-cards.sort-order=desc>

Question 39:

Which of the statements below is correct in relation to Consolidated Billing?
(Select TWO.)

1. You pay a fee per linked account
2. You receive one bill per AWS account
3. You receive a single bill for multiple accounts
4. You are charged a fee per user
5. You can combine usage and share volume pricing discounts

Correct Answer(s): 3, 5

Explanation:

Consolidated billing has the following benefits:

One bill – You get one bill for multiple accounts.

Easy tracking – You can track the charges across multiple accounts and download the combined cost and usage data.

Combined usage – You can combine the usage across all accounts in the organization to share the volume pricing discounts and Reserved Instance discounts. This can result in a lower charge for your project, department, or company than with individual standalone accounts.

CORRECT: "You receive a single bill for multiple accounts" is a correct answer.

CORRECT: "You can combine usage and share volume pricing discounts" is also a correct answer.

INCORRECT: "You receive one bill per AWS account" is incorrect as you receive a single bill for multiple accounts.

INCORRECT: "You pay a fee per linked account" is incorrect as you do not pay a fee.

INCORRECT: "You are charged a fee per user" is incorrect as you do not pay a fee.

References:

<https://docs.aws.amazon.com/awsaccountbilling/latest/aboutv2/consolidated-billing.html>

Question 40:

Which AWS service gives you centralized control over the encryption keys used to protect your data?

1. AWS STS
2. Amazon EBS
3. AWS KMS
4. AWS DMS

Correct Answer(s): 3

Explanation:

AWS Key Management Service gives you centralized control over the encryption keys used to protect your data. You can create, import, rotate, disable, delete, define usage policies for, and audit the use of encryption keys used to encrypt your data.

Note: Make sure you know your abbreviations! Sometimes AWS will expand them and other times they won't, it varies by question. Therefore, you must know the abbreviations for all services in scope for the exam.

CORRECT: "AWS KMS" is the correct answer.

INCORRECT: "AWS STS" is incorrect. The AWS Security Token Service (STS) is a web service that enables you to request temporary, limited-privilege credentials for AWS Identity and Access Management (IAM) users.

INCORRECT: "AWS DMS" is incorrect. AWS Database Migration Service (DMS) helps you migrate databases to AWS quickly and securely.

INCORRECT: "Amazon EBS" is incorrect. Amazon Elastic Block Store (Amazon EBS) provides persistent block storage volumes for use with Amazon EC2 instances in the AWS Cloud.

References:

<https://aws.amazon.com/kms/>

Question 41:

Which AWS service can be used to run Docker containers?

1. Amazon ECR
2. Amazon AMI
3. Amazon ECS
4. AWS Lambda

Correct Answer(s): 3

Explanation:

Amazon Elastic Container Service (ECS) is a highly scalable, high performance container management service that supports Docker containers and allows you to easily run applications on a managed cluster of Amazon EC2 instances.

CORRECT: "Amazon ECS" is the correct answer.

INCORRECT: "AWS Lambda" is incorrect. AWS Lambda is a serverless technology that lets you run code in response to events as functions

INCORRECT: "Amazon ECR" is incorrect. Amazon Elastic Container Registry (ECR) is a fully-managed Docker container registry that makes it easy for developers to store, manage, and deploy Docker container images

INCORRECT: "Amazon AMI" is incorrect. Amazon Machine Images (AMI) store configuration information for Amazon EC2 instances.

References:

<https://aws.amazon.com/ecs/>

Question 42:

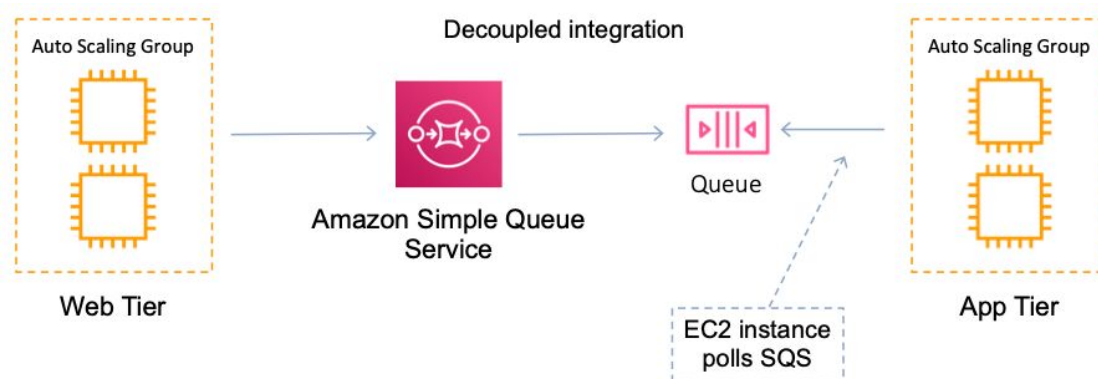
You need to implement a hosted queue for storing messages in transit between application servers. Which service should you use?

1. Amazon SQS
2. Amazon SWF
3. Amazon DynamoDB
4. Amazon SNS

Correct Answer(s): 1

Explanation:

Amazon Simple Queue Service (Amazon SQS) is a web service that gives you access to message queues that store messages waiting to be processed. SQS offers a reliable, highly-scalable, hosted queue for storing messages in transit between computers. SQS is used for distributed/decoupled application.



CORRECT: "Amazon SQS" is a correct answer.

INCORRECT: "Amazon SNS" is incorrect. Amazon Simple Notification Service (SNS) is a highly available, durable, secure, fully managed pub/sub

messaging service that enables you to decouple microservices, distributed systems, and serverless applications.

INCORRECT: "Amazon DynamoDB" is incorrect. Amazon DynamoDB is a nonrelational database that delivers reliable performance at any scale.

INCORRECT: "Amazon SWF" is incorrect. Amazon SWF helps developers build, run, and scale background jobs that have parallel or sequential steps.

References:

<https://aws.amazon.com/sqs/>

Question 43:

How can a security compliance officer retrieve AWS compliance documentation such as a SOC 2 report?

1. Using AWS Trusted Advisor
2. Using AWS Inspector
3. Using the AWS Personal Health Dashboard
4. Using AWS Artifact

Correct Answer(s): 4

Explanation:

AWS Artifact, available in the console, is a self-service audit artifact retrieval portal that provides our customers with on-demand access to AWS' compliance documentation and AWS agreements.

You can use AWS Artifact Reports to download AWS security and compliance documents, such as AWS ISO certifications, Payment Card Industry (PCI), and System and Organization Control (SOC) reports.

CORRECT: "Using AWS Artifact" is the correct answer.

INCORRECT: "Using AWS Trusted Advisor" is incorrect. AWS Trusted Advisor is an online resource to help you reduce cost, increase performance, and improve security by optimizing your AWS environment.

INCORRECT: "Using AWS Inspector" is incorrect. Inspector is an automated security assessment service that helps improve the security and

compliance of applications deployed on AWS.

INCORRECT: "Using the AWS Personal Health Dashboard" is incorrect. AWS Personal Health Dashboard provides alerts and remediation guidance when AWS is experiencing events that may impact you.

References:

<https://aws.amazon.com/artifact/>

Question 44:

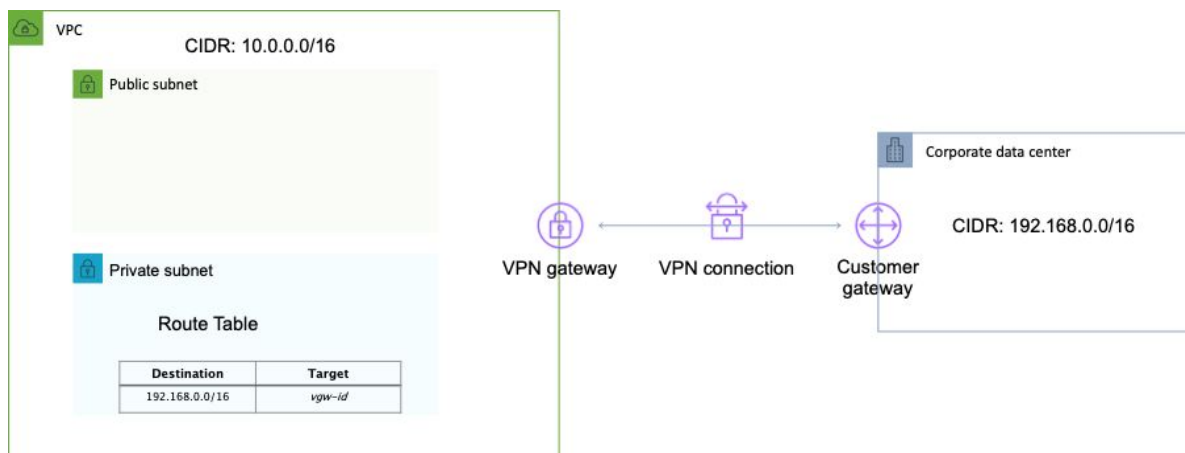
To connect an on-premises network to an Amazon VPC using an Amazon Managed VPN connection, which components are required? (Select TWO.)

1. Customer Gateway
2. Direct Connect
3. NAT Instance
4. VPC Router
5. Virtual Private Gateway

Correct Answer(s): 1, 5

Explanation:

Two of the components you need to connect to your VPC with a VPN connection are a virtual private gateway on the VPC side and a customer gateway on the on-premise network side.



CORRECT: "Virtual Private Gateway" is a correct answer.

CORRECT: "Customer Gateway" is also a correct answer.

INCORRECT: "VPC Router" is incorrect. VPC routers are not part of the VPN configuration.

INCORRECT: "NAT Instance" is incorrect. NAT instances are not used for VPN, they are used by EC2 instances in private subnets to access the Internet.

INCORRECT: "Direct Connect" is incorrect. AWS Direct Connect can be used to connect an on-premise network to the cloud however it is not part of the configuration of an Amazon Managed VPN connection

References:

https://docs.aws.amazon.com/vpc/latest/userguide/VPC_VPN.html

Question 45:

Which AWS service can be used to load data from Amazon S3, transform it, and move it to another destination?

1. AWS Glue
2. Amazon Kinesis
3. Amazon RedShift
4. Amazon EMR

Correct Answer(s): 1

Explanation:

AWS Glue is an Extract, Transform, and Load (ETL) service. You can use AWS Glue with data sources on Amazon S3, RedShift and other databases. With AWS Glue you transform and move the data to various destinations. It is used to prepare and load data for analytics.

CORRECT: "AWS Glue" is the correct answer.

INCORRECT: "Amazon RedShift" is incorrect. Amazon RedShift is a data warehouse. With a data warehouse you load data from other databases such

as transactional SQL databases and run analysis. You can analyze data using SQL and Business Intelligence tools.

INCORRECT: "Amazon EMR" is incorrect. Amazon EMR is a managed Hadoop framework running on EC2 and S3. It is used for analyzing data, not for ETL.

INCORRECT: "Amazon Kinesis" is incorrect. Amazon Kinesis is used for collecting, processing and analyzing real-time streaming data.

References:

<https://aws.amazon.com/glue/>

Question 46:

How should an organization deploy an application running on multiple EC2 instances to ensure that a power failure does not cause an application outage?

1. Launch the EC2 instances into different VPCs
2. Launch the EC2 instances into Edge Locations
3. Launch the EC2 instances into different Availability Zones
4. Launch the EC2 instances in separate regions

Correct Answer(s): 3

Explanation:

If you have multiple EC2 instances that are part of an application, you should deploy them into separate availability zones (AZs). Each AZ has redundant power and is also fed from a different grid. AZs also have low-latency network links which is often advantageous for most applications.

You do not need to deploy into separate regions to prevent a power outage bringing your application down. AZs have redundant power and grids so you are safe deploying your applications into multiple AZs. If you split your applications across regions you introduce latency which may impact your application. You may also run into data sovereignty issues in some cases.

Deploying your EC2 instances into different VPCs is not required and would complicate your application deployment. Also, bear in mind that VPCs

within a region use the same underlying infrastructure so deploying into different VPCs may still result in your EC2 instances being deployed into the same AZs. It is a best practice to deploy into separate AZs.

CORRECT: "Launch the EC2 instances into different Availability Zones" is the correct answer.

INCORRECT: "Launch the EC2 instances in separate regions" is incorrect as described above.

INCORRECT: "Launch the EC2 instances into different VPCs" is incorrect as described above.

INCORRECT: "Launch the EC2 instances into Edge Locations" is incorrect. You cannot deploy EC2 instances into Edge Locations.

References:

<https://aws.amazon.com/about-aws/global-infrastructure/>

Question 47:

What is a Resource Group?

1. A collection of services within a region
2. A collection of resources that share one or more tags
3. A collection of resources within a VPC
4. A collection of services within a category

Correct Answer(s): 2

Explanation:

A resource group is a collection of resources that share one or more tags or portions of tags. To create a resource group, you simply identify the tags that contain the items that members of the group should have in common.

CORRECT: "A collection of resources that share one or more tags" is the correct answer.

INCORRECT: "A collection of resources within a VPC" is incorrect.

INCORRECT: "A collection of services within a category" is incorrect.

INCORRECT: "A collection of services within a region" is incorrect.

References:

<https://docs.aws.amazon.com/awsconsolehelpdocs/latest/gsg/what-are-resource-groups.html>

Question 48:

Which AWS service protects against common exploits that could compromise application availability, compromise security or consume excessive resources?

1. Security Group
2. Network ACL
3. AWS Shield
4. AWS WAF

Correct Answer(s): 4

Explanation:

AWS WAF is a web application firewall that protects against common exploits that could compromise application availability, compromise security or consume excessive resources.

CORRECT: "AWS WAF" is the correct answer.

INCORRECT: "AWS Shield" is incorrect. AWS Shield is a managed Distributed Denial of Service (DDoS) protection service.

INCORRECT: "Security Group" is incorrect. Security groups are firewalls applied at the instance level.

INCORRECT: "Network ACL" is incorrect. Network ACLs are firewalls applied at the subnet level.

References:

<https://aws.amazon.com/waf/>

Question 49:

What are two ways of connecting to an Amazon VPC from an on-premise data center? (Select TWO.)

1. AWS Direct Connect
2. VPC Router
3. AWS VPN CloudHub
4. VPC Peering
5. Internet Gateway

Correct Answer(s): 1, 3

Explanation:

You can connect from your on-premise data center to a VPC via Direct Connect or VPN CloudHub.

AWS Direct Connect is a network service that provides an alternative to using the Internet to connect a customer's on premise sites to AWS.

If you have multiple VPN connections, you can provide secure communication between sites using the AWS VPN CloudHub.

CORRECT: "AWS Direct Connect" is a correct answer.

CORRECT: "AWS VPN CloudHub" is also a correct answer.

INCORRECT: "VPC Peering" is incorrect as this is a way to connect VPCs to each other, not on-premises locations

INCORRECT: "Internet Gateway" is incorrect as this is used to provide internet connectivity to a VPC.

INCORRECT: "VPC Router" is incorrect as this is used for routing within a VPC.

References:

<https://aws.amazon.com/directconnect/>

<https://docs.aws.amazon.com/whitepapers/latest/aws-vpc-connectivity-options/aws-vpn-cloudhub-network-to-amazon.html>

Question 50:

Which AWS service helps customers meet corporate, contractual, and regulatory compliance requirements for data security by using dedicated hardware appliances within the AWS Cloud?

1. AWS Secrets Manager
2. AWS Directory Service
3. AWS CloudHSM
4. AWS Key Management Service (AWS KMS)

Correct Answer(s): 3

Explanation:

The AWS CloudHSM service helps you meet corporate, contractual, and regulatory compliance requirements for data security by using dedicated Hardware Security Module (HSM) instances within the AWS cloud. AWS CloudHSM enables you to easily generate and use your own encryption keys on the AWS Cloud.

CORRECT: "AWS CloudHSM" is the correct answer.

INCORRECT: "AWS Secrets Manager" is incorrect. AWS Secrets Manager enables you to easily rotate, manage, and retrieve database credentials, API keys, and other secrets throughout their lifecycle.

INCORRECT: "AWS Key Management Service (AWS KMS)" is incorrect. This service is also involved with creating and managing encryption keys but does not use dedicated hardware.

INCORRECT: "AWS Directory Service" is incorrect. AWS Directory Service for Microsoft Active Directory, also known as AWS Managed Microsoft AD, enables your directory-aware workloads and AWS resources to use managed Active Directory in the AWS Cloud.

References:

<https://aws.amazon.com/cloudhsm/features/>

Question 51:

Which AWS service provides preconfigured virtual private servers (instances) that include everything required to deploy an application or

create a database?

1. AWS CloudFormation
2. Amazon ECS
3. AWS Lambda
4. Amazon Lightsail

Correct Answer(s): 4

Explanation:

LightSail provides preconfigured virtual private servers (instances) that include everything required to deploy and application or create a database.

LightSail includes everything you need to launch your project quickly – a virtual machine, SSD-based storage, data transfer, DNS management, and a static IP.

CORRECT: "Amazon Lightsail" is the correct answer.

INCORRECT: "AWS CloudFormation" is incorrect. CloudFormation is used to deploy resources through code, as a service it does not include preconfigured servers.

INCORRECT: "Amazon ECS" is incorrect. Amazon Elastic Container Service (ECS) is a highly scalable, high performance container management service that supports Docker containers and allows you to easily run applications on a managed cluster of Amazon EC2 instances.

INCORRECT: "AWS Lambda" is incorrect. Lambda is a serverless computing technology that allows you to run code without provisioning or managing servers.

References:

<https://aws.amazon.com/lightsail/>

Question 52:

A user has limited knowledge of AWS services, but wants to quickly deploy a scalable Node.js application in an Amazon VPC.

Which service should be used to deploy the application?

1. Amazon EC2
2. AWS CloudFormation
3. Amazon LightSail
4. AWS Elastic Beanstalk

Correct Answer(s): 4

Explanation:

AWS Elastic Beanstalk is an easy-to-use service for deploying and scaling web applications and services developed with Java, .NET, PHP, Node.js, Python, Ruby, Go, and Docker on familiar servers such as Apache, Nginx, Passenger, and IIS.

You can simply upload your code and Elastic Beanstalk automatically handles the deployment, from capacity provisioning, load balancing, auto-scaling to application health monitoring. At the same time, you retain full control over the AWS resources powering your application and can access the underlying resources at any time.

CORRECT: "AWS Elastic Beanstalk" is the correct answer.

INCORRECT: "Amazon LightSail" is incorrect. LightSail is a good service to use when you don't have good knowledge of AWS. However, you cannot deploy a scalable node.js application into a VPC.

INCORRECT: "AWS CloudFormation" is incorrect. CloudFormation is used for automating the deployment of infrastructure resources in AWS.

INCORRECT: "Amazon EC2" is incorrect. This would require more expertise than using Elastic Beanstalk.

References:

<https://aws.amazon.com/elasticbeanstalk/>

Question 53:

Using AWS terminology, which items can be created in an Amazon S3 bucket? (Select TWO.)

1. Tables

2. Objects
3. Folders
4. Files
5. Queues

Correct Answer(s): 2, 3

Explanation:

The Amazon Simple Storage Service (S3) is an object store so you create objects (files, images, video etc.) within buckets. Though it is a flat structure (no hierarchy), you can mimic a hierarchical structure by using folders.

CORRECT: "Folders" is a correct answer.

CORRECT: "Objects" is also a correct answer.

INCORRECT: "Files" is incorrect as with an object-based storage system you create objects.

INCORRECT: "Tables" is incorrect as you do not create table in S3, you create them in a database such as Amazon DynamoDB.

INCORRECT: "Queues" is incorrect as a queue is created in a message queue service like Amazon SQS.

References:

<https://docs.aws.amazon.com/AmazonS3/latest/dev/Introduction.html>

Question 54:

A user needs an automated security assessment report that will identify unintended network access to Amazon EC2 instances and vulnerabilities on those instances.

Which AWS service will provide this assessment report?

1. Amazon Inspector
2. EC2 security groups
3. Amazon Macie
4. AWS Config

Correct Answer(s): 1

Explanation:

Amazon Inspector is an automated security assessment service that helps improve the security and compliance of applications deployed on AWS. Amazon Inspector automatically assesses applications for exposure, vulnerabilities, and deviations from best practices.

After performing an assessment, Amazon Inspector produces a detailed list of security findings prioritized by level of severity. These findings can be reviewed directly or as part of detailed assessment reports which are available via the Amazon Inspector console or API.

CORRECT: "Amazon Inspector" is the correct answer.

INCORRECT: "EC2 security groups" is incorrect. Security groups are instance-level firewalls used for controlling network traffic reaching and leaving EC2 instances.

INCORRECT: "AWS Config" is incorrect. AWS Config is a service that enables you to assess, audit, and evaluate the configurations of your AWS resources.

INCORRECT: "Amazon Macie" is incorrect. Amazon Macie is a fully managed data security and data privacy service that uses machine learning and pattern matching to discover and protect sensitive data in AWS.

References:

<https://aws.amazon.com/inspector/>

Question 55:

Which AWS construct provides you with your own dedicated virtual network in the cloud?

1. Amazon Workspaces
2. Amazon EC2
3. Amazon VPC
4. Amazon IAM

Correct Answer(s): 3

Explanation:

A virtual private cloud (VPC) is a virtual network dedicated to your AWS account. A VPC is analogous to having your own DC inside AWS. It is logically isolated from other virtual networks in the AWS Cloud.

CORRECT: "Amazon VPC" is the correct answer.

INCORRECT: "Amazon Workspaces" is incorrect. Amazon WorkSpaces is a managed desktop computing service running on the AWS cloud

INCORRECT: "Amazon EC2" is incorrect. Amazon Elastic Compute Cloud (Amazon EC2) is a web service that provides secure, resizable compute capacity in the cloud.

INCORRECT: "Amazon IAM" is incorrect. IAM is used to securely control individual and group access to AWS resources.

References:

<https://docs.aws.amazon.com/vpc/latest/userguide/what-is-amazon-vpc.html>

Question 56:

Which configuration changes are associated with scaling horizontally? (Select TWO.)

1. Changing an EC2 instance to a type that has more CPU and RAM
2. Adding additional EC2 instances through Auto Scaling
3. Changing the DB instance class on an RDS DB
4. Adding a larger capacity hard drive to a server
5. Adding additional hard drives to a storage array

Correct Answer(s): 2, 5

Explanation:

Scaling horizontally takes place through an increase in the number of resources (e.g., adding more hard drives to a storage array or adding more servers to support an application)

Scaling vertically takes place through an increase in the specifications of an individual resource (e.g., upgrading a server with a larger hard drive or a faster CPU). On Amazon EC2, this can easily be achieved by stopping an instance and resizing it to an instance type that has more RAM, CPU, IO, or networking capabilities

CORRECT: "Adding additional EC2 instances through Auto Scaling" is the correct answer.

CORRECT: "Adding additional hard drives to a storage array" is the correct answer.

INCORRECT: "Adding a larger capacity hard drive to a server" is incorrect as this is scaling vertically.

INCORRECT: "Changing the DB instance class on an RDS DB" is incorrect as this is scaling vertically.

INCORRECT: "Changing an EC2 instance to a type that has more CPU and RAM" is incorrect as this is scaling vertically.

References:

<https://aws.amazon.com/architecture/well-architected/>

Question 57:

Which of the following compliance programs allows the AWS environment to process, maintain, and store protected health information?

1. HIPAA
2. SOC 1
3. PCI DSS
4. ISO 27001

Correct Answer(s): 1

Explanation:

AWS enables covered entities and their business associates subject to the U.S. Health Insurance Portability and Accountability Act of 1996 (HIPAA)

to use the secure AWS environment to process, maintain, and store protected health information.

CORRECT: "HIPAA" is the correct answer.

INCORRECT: "ISO 27001" is incorrect as ISO/IEC 27001 is an information security standard.

INCORRECT: "PCI DSS" is incorrect as PCI DSS is related to the security of credit card payments.

INCORRECT: "SOC 1" is incorrect as this relates to financial reporting.

References:

<https://aws.amazon.com/compliance/programs/>

<https://aws.amazon.com/compliance/hipaa-compliance/>

Question 58:

Which service provides visibility into user activity by recording actions taken on your account?

1. Amazon CloudFormation
2. Amazon CloudWatch
3. Amazon CloudHSM
4. Amazon CloudTrail

Correct Answer(s): 4

Explanation:

CloudTrail is a web service that records activity made on your account and delivers log files to an Amazon S3 bucket. CloudTrail records API activity. CloudTrail is used for auditing whereas CloudWatch is used for performance monitoring.

CORRECT: "Amazon CloudTrail" is the correct answer.

INCORRECT: "Amazon CloudWatch" is incorrect. CloudWatch is used for performance monitoring.

INCORRECT: "Amazon CloudFormation" is incorrect. CloudFormation is used for deploying infrastructure through code

INCORRECT: "Amazon CloudHSM" is incorrect. CloudHSM is a hardware security module for generating, managing and storing encryption keys.

References:

<https://aws.amazon.com/cloudtrail/>

Question 59:

Which cloud computing model gives the IT department the highest level of flexibility and management control?

1. On-premises cloud
2. Software as a Service (SaaS)
3. Platform as a Service (PaaS)
4. Infrastructure as a Service (IaaS)

Correct Answer(s): 4

Explanation:

With IaaS the IT department have the most flexibility and management control over resources as only the infrastructure layer is provided by the Cloud Provider. Everything else is managed by the end customer. This means more control and more responsibility for management.

With PaaS and SaaS, the Cloud Provider manages up to a higher level in the stack. This means that as an organization using the service you have less control (and less responsibility).

On-premises cloud is a cloud deployment model, not a cloud computing model. Other cloud deployment models are Private, Public and Hybrid.

CORRECT: "Infrastructure as a Service (IaaS)" is the correct answer.

INCORRECT: "Platform as a Service (PaaS)" is incorrect as explained above.

INCORRECT: "Software as a Service (SaaS)" is incorrect as explained above.

INCORRECT: "On-premises cloud" is incorrect as explained above.

References:

<https://d1.awsstatic.com/whitepapers/aws-overview.pdf>

Question 60:

At what level is a Network ACL applied?

1. Availability Zone level
2. Instance level
3. Subnet level
4. Region level

Correct Answer(s): 3**Explanation:**

Network Access Control Lists (ACLs) are a firewall/security layer applied at the subnet level.

Security Groups are a firewall/security layer applied at the instance level.

CORRECT: "Subnet level" is the correct answer.

INCORRECT: "Instance level" is incorrect as security groups are applied at the instance level.

INCORRECT: "Region level" is incorrect as they are not applied at a regional level.

INCORRECT: "Availability Zone level" is incorrect as they are not applied at an AZ level.

References:

<https://docs.aws.amazon.com/vpc/latest/userguide/vpc-network-acls.html>

Question 61:

Which of the following are valid types of Reserved Instance? (Select TWO.)

1. Long-Term RI
2. Convertible RI
3. Scheduled RI

4. Special RI
5. Discounted RI

Correct Answer(s): 2, 3

Explanation:

Reserved Instances (RI) provide a significant discount (up to 72%) compared to On-Demand pricing and provide a capacity reservation when used in a specific Availability Zone. The following types of RI are available:

Standard RIs: These provide the most significant discount (up to 75% off On-Demand) and are best suited for steady-state usage.

Convertible RIs: These provide a discount (up to 54% off On-Demand) and the capability to change the attributes of the RI as long as the exchange results in the creation of Reserved Instances of equal or greater value. Like Standard RIs, Convertible RIs are best suited for steady-state usage.

Scheduled RIs: These are available to launch within the time windows you reserve. This option allows you to match your capacity reservation to a predictable recurring schedule that only requires a fraction of a day, a week, or a month.

CORRECT: "Convertible RI" is a correct answer.

CORRECT: "Scheduled RI" is also a correct answer.

INCORRECT: "Discounted RI" is incorrect as this is not a type of RI available.

INCORRECT: "Long-Term RI" is incorrect as this is not a type of RI available.

INCORRECT: "Special RI" is incorrect as this is not a type of RI available.

References:

<https://aws.amazon.com/ec2/pricing/reserved-instances/>

Question 62:

What type of database is fully managed and can be scaled without incurring downtime?

1. Amazon RDS
2. Amazon ElastiCache
3. Amazon S3
4. Amazon DynamoDB

Correct Answer(s): 4

Explanation:

Amazon DynamoDB is fully managed and can be scaled without incurring downtime. DynamoDB scales horizontally and it does so seamlessly.

Both RDS and ElastiCache use EC2 instances and therefore scaling (vertically) requires downtime.

CORRECT: "Amazon DynamoDB" is the correct answer.

INCORRECT: "Amazon RDS" is incorrect as it must be scaled vertically and this requires downtime.

INCORRECT: "Amazon S3" is incorrect. S3 is not a fully managed database, it is an object store.

INCORRECT: "Amazon ElastiCache" is incorrect as it must be scaled vertically and this requires downtime.

References:

<https://aws.amazon.com/dynamodb/>

Question 63:

A company is planning to migrate some resources into the cloud. What factors need to be considered when determining the cost of the AWS Cloud? (Select TWO.)

1. The amount of egress data per month
2. The number of VPCs created
3. The amount of ingress data per month
4. The number of IAM users created
5. The number of servers migrated into EC2

Correct Answer(s): 1, 5

Explanation:

There are three fundamental drivers of cost with AWS: compute, storage, and outbound data transfer. These characteristics vary somewhat, depending on the AWS product and pricing model you choose.

In most cases, there is no charge for inbound data transfer or for data transfer between other AWS services within the same region. However, there are some exceptions.

CORRECT: "The number of servers migrated into EC2" is a correct answer.

CORRECT: "The amount of egress data per month" is also a correct answer.

INCORRECT: "The number of VPCs created" is incorrect as you are not charged for VPCs.

INCORRECT: "The number of IAM users created" is incorrect as you are not charged for IAM.

INCORRECT: "The amount of ingress data per month" is incorrect as you are not charged for data ingress.

References:

https://d0.awsstatic.com/whitepapers/aws_pricing_overview.pdf

Question 64:

Which configuration changes are associated with scaling vertically? (Select TWO.)

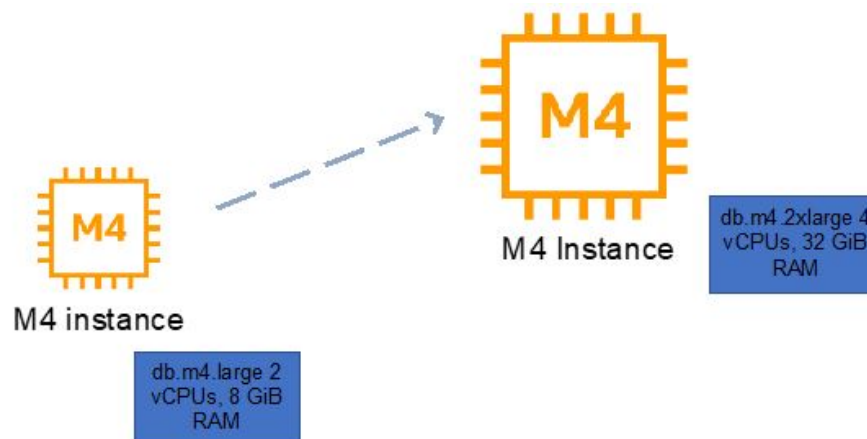
1. Adding additional EC2 instances through Auto Scaling
2. Changing an EC2 instance to a type that has more CPU and RAM
3. Distributed processing
4. Adding additional hard drives to a storage array
5. Adding a larger capacity hard drive to a server

Correct Answer(s): 2, 5

Explanation:

Scaling vertically takes place through an increase in the specifications of an individual resource (e.g., upgrading a server with a larger hard drive or a faster CPU). On Amazon EC2, this can easily be achieved by stopping an instance and resizing it to an instance type that has more RAM, CPU, IO, or networking capabilities.

The diagram below shows an example of scaling vertically with RDS by changing instance type.



Scaling horizontally takes place through an increase in the number of resources (e.g., adding more hard drives to a storage array or adding more servers to support an application).

CORRECT: "Adding a larger capacity hard drive to a server" is a correct answer.

CORRECT: "Changing an EC2 instance to a type that has more CPU and RAM" is also a correct answer.

INCORRECT: "Adding additional EC2 instances through Auto Scaling" is incorrect as this is an example of scaling horizontally.

INCORRECT: "Adding additional hard drives to a storage array" is incorrect as this is an example of scaling horizontally.

INCORRECT: "Distributed processing" is incorrect as this is an example of scaling horizontally.

References:

<https://aws.amazon.com/architecture/well-architected/>

Question 65:

An application stores images which will be retrieved infrequently, but must be available for retrieval immediately. Which is the most cost-effective storage option that meets these requirements?

1. Amazon Glacier with expedited retrievals
2. Amazon EFS
3. Amazon S3 Standard-Infrequent Access
4. Amazon S3 Standard

Correct Answer(s): 3

Explanation:

Amazon S3 Standard-Infrequent Access is the most cost-effective choice. It provides immediate access and is suitable for this use case as it is lower cost than S3 standard. Note that you must pay a fee for retrievals which is why you would only use this tier for infrequent access use cases.

CORRECT: "Amazon S3 Standard-Infrequent Access" is the correct answer.

INCORRECT: "Amazon Glacier with expedited retrievals" is incorrect. Amazon Glacier with expedited retrievals is fast (1-5 minutes) but not immediate.

INCORRECT: "Amazon EFS" is incorrect. Amazon EFS is a high-performance file system and not ideally suited to this scenario, it is also not the most cost-effective option.

INCORRECT: "Amazon S3 Standard" is incorrect. Amazon S3 Standard provides immediate retrieval but is not less cost-effective compared to Standard-Infrequent access.

References:

<https://aws.amazon.com/s3/storage-classes/>

AWS CERTIFIED CLOUD PRACTITIONER

TEST 3

AWS CERTIFIED CLOUD PRACTITIONER:

TEST 3

Question 1:

Which Amazon EC2 Reserved Instance type enables you to match your capacity reservation to predictable recurring dates and times?

1. Convertible RI
2. Scheduled RI
3. Customized RI
4. Standard RI

Correct Answer(s): 2

Explanation:

With RIs, you can choose the type that best fits your applications needs.

Standard RIs: These provide the most significant discount (up to 75% off On-Demand) and are best suited for steady-state usage.

Convertible RIs: These provide a discount (up to 54% off On-Demand) and the capability to change the attributes of the RI as long as the exchange results in the creation of Reserved Instances of equal or greater value. Like Standard RIs, Convertible RIs are best suited for steady-state usage.

Scheduled RIs: These are available to launch within the time windows you reserve. This option allows you to match your capacity reservation to a predictable recurring schedule that only requires a fraction of a day, a week, or a month.

CORRECT: "Scheduled RI" is the correct answer.

INCORRECT: "Standard RI" is incorrect as it does not allow you to match your capacity reservation to predictable recurring dates and times.

INCORRECT: "Convertible RI" is incorrect as it does not allow you to match your capacity reservation to predictable recurring dates and times.

INCORRECT: "Customized RI" is incorrect. This is not a valid type of RI.

References:

<https://aws.amazon.com/ec2/pricing/reserved-instances/>

Question 2:

To gain greater discounts, which services can be reserved? (Select TWO.)

1. Amazon CloudWatch
2. Amazon S3
3. AWS Lambda
4. Amazon DynamoDB
5. Amazon RedShift

Correct Answer(s): 4, 5

Explanation:

Reservations provide you with greater discounts, up to 75%, by paying for capacity ahead of time. Some of the services you can reserve include: EC2, DynamoDB, ElastiCache, RDS, and RedShift.

CORRECT: "Amazon RedShift" is a correct answer.

CORRECT: "Amazon DynamoDB" is also a correct answer.

INCORRECT: "Amazon S3" is incorrect. You cannot reserve Amazon S3, you pay for what you use.

INCORRECT: "AWS Lambda" is incorrect. AWS Lambda is a service that provides functions and cannot be reserved.

INCORRECT: "Amazon CloudWatch" is incorrect. You cannot reserve Amazon CloudWatch which is a monitoring service.

References:

https://d1.awsstatic.com/whitepapers/aws_pricing_overview.pdf

Question 3:

Which IAM entity can be used for assigning permissions to multiple users?

1. IAM Group
2. IAM User
3. IAM Role
4. IAM password policy

Correct Answer(s): 1

Explanation:

Groups are collections of users and have policies attached to them. You can use groups to assign permissions to multiple users. To do this place the users in the group and then create an IAM policy with the correct permissions and attach it to the group.

You do not use an IAM User, Role, or password policy to assign permissions to multiple users.

CORRECT: "IAM Group" is the correct answer.

INCORRECT: "IAM User" is incorrect as explained above.

INCORRECT: "IAM Role" is incorrect as explained above.

INCORRECT: "IAM password policy" is incorrect as explained above.

References:

https://docs.aws.amazon.com/IAM/latest/UserGuide/id_groups.html

Question 4:

What is the best way for an organization to transfer hundreds of terabytes of data from their on-premise data center into Amazon S3 with limited bandwidth available?

1. Use Amazon CloudFront
2. Use S3 Transfer Acceleration
3. Use AWS Snowball
4. Apply compression before uploading

Correct Answer(s): 3

Explanation:

Snowball is a petabyte-scale data transport solution that uses devices designed to be secure to transfer large amounts of data into and out of the AWS Cloud. Using Snowball addresses common challenges with large-scale data transfers including high network costs, long transfer times, and security concerns

CORRECT: "Use AWS Snowball" is the correct answer.

INCORRECT: "Use S3 Transfer Acceleration" is incorrect. Amazon S3 Transfer Acceleration enables fast, easy, and secure transfers of files over long distances between your client and an S3 bucket. Transfer Acceleration takes advantage of Amazon CloudFront's globally distributed edge locations. However, for these volumes of data Snowball is a better choice.

INCORRECT: "Apply compression before uploading" is incorrect as for this volume of data Snowball should be used.

INCORRECT: "Use Amazon CloudFront" is incorrect as this cannot be used for uploading large quantities of data to Amazon S3.

References:

<https://aws.amazon.com/snowball/>

Question 5:

Which of the following statements are correct about the benefits of AWS Direct Connect? (Select TWO.)

1. Uses redundant paths across the Internet
2. Increased bandwidth (predictable bandwidth)
3. Lower cost than a VPN
4. Increased reliability (predictable performance)
5. Quick to implement

Correct Answer(s): 2, 4

Explanation:

AWS Direct Connect is a network service that provides an alternative to using the Internet to connect customers' on premise sites to AWS.

Data is transmitted through a private network connection between AWS and a customer's data center or corporate network.

Benefits of AWS Direct Connect:

- Reduce cost when using large volumes of traffic.
- Increase reliability (predictable performance).
- Increase bandwidth (predictable bandwidth).
- Decrease latency.

CORRECT: "Increased reliability (predictable performance)" is a correct answer.

CORRECT: "Increased bandwidth (predictable bandwidth)" is also a correct answer.

INCORRECT: "Quick to implement" is incorrect. Direct Connect is not fast to implement as it can take weeks to months to setup (use VPN for fast deployment times).

INCORRECT: "Lower cost than a VPN" is incorrect. Direct Connect is more expensive than VPN.

INCORRECT: "Uses redundant paths across the Internet" is incorrect. Direct Connect uses private network connections, it does not use redundant paths over the Internet.

References:

<https://aws.amazon.com/directconnect/>

Question 6:

Which IAM entity can be used for assigning permissions to AWS services?

1. Security Token Service (STS)
2. IAM Policy
3. IAM Role
4. IAM Access Key ID and Secret Access Key

Correct Answer(s): 3

Explanation:

With IAM Roles you can delegate permissions to resources for users and services without using permanent credentials (e.g. username and password). To do so you can create a role and assign an IAM policy to the role that has the permissions required.

CORRECT: "IAM Role" is the correct answer.

INCORRECT: "IAM Access Key ID and Secret Access Key" is incorrect. An access key ID and secret access key are assigned to IAM users and used for programmatic access using the API or CLI.

INCORRECT: "IAM Policy" is incorrect. An IAM policy is a policy document that is used to define permissions that can be applied to users, groups and roles. You don't apply the policy to the service, you apply it to the role. The role is then used to assign permissions to the AWS service.

INCORRECT: "Security Token Service (STS)" is incorrect. This service is used for gaining temporary security credentials.

References:

https://docs.aws.amazon.com/IAM/latest/UserGuide/id_roles_create_for-service.html

Question 7:

Which AWS tools can be used for automation? (Select TWO.)

1. AWS CloudFormation
2. AWS Elastic Beanstalk
3. Elastic Load Balancing
4. Amazon Elastic File System (EFS)
5. AWS Lambda

Correct Answer(s): 1, 2

Explanation:

AWS Elastic Beanstalk and AWS CloudFormation are both examples of automation. Beanstalk is a platform service that leverages the automation capabilities of CloudFormation to build out application architectures.

CORRECT: "AWS Elastic Beanstalk" is a correct answer.

CORRECT: "AWS CloudFormation" is also a correct answer.

INCORRECT: "Elastic Load Balancing" is incorrect. Elastic Load Balancing (ELB) is used for distributing incoming connections to Amazon EC2 instances. This is not an example of automation; it is load balancing.

INCORRECT: "Amazon Elastic File System (EFS)" is incorrect. Amazon EFS is a file system.

INCORRECT: "AWS Lambda" is incorrect. AWS Lambda is a compute service, not an automation service.

References:

<https://aws.amazon.com/elasticbeanstalk/>

<https://aws.amazon.com/cloudformation/>

Question 8:

Under the AWS shared responsibility model what is AWS responsible for? (Select TWO.)

1. Encryption of customer data
2. Replacement and disposal of disk drives
3. Configuration of security groups
4. Physical security of the data center
5. Patch management of operating systems

Correct Answer(s): 2, 4

Explanation:

AWS are responsible for "Security of the Cloud" and customers are responsible for "Security in the Cloud".

AWS are responsible for items such as the physical security of the DC, replacement of old disk drives, and patch management of the infrastructure.

Customers are responsible for items such as configuring security groups, network ACLs, patching their operating systems and encrypting their data

CORRECT: "Physical security of the data center" is the correct answer.

CORRECT: "Replacement and disposal of disk drives" is the correct answer.

INCORRECT: "Configuration of security groups" is incorrect as this is a customer responsibility.

INCORRECT: "Patch management of operating systems" is incorrect as this is a customer responsibility.

INCORRECT: "Encryption of customer data" is incorrect as this is a customer responsibility.

References:

<https://aws.amazon.com/compliance/shared-responsibility-model/>

Question 9:

Which AWS service is known as a "serverless" service and runs code as functions triggered by events?

1. AWS Lambda
2. Amazon ECS
3. Amazon Cognito
4. Amazon CodeDeploy

Correct Answer(s): 1

Explanation:

AWS Lambda lets you run code as functions without provisioning or managing servers. Lambda-based applications (also referred to as serverless applications) are composed of functions triggered by events. With serverless computing, your application still runs on servers, but all the server management is done by AWS.

CORRECT: "AWS Lambda" is the correct answer.

INCORRECT: "Amazon ECS" is incorrect. Amazon Elastic Container Service (ECS) is a highly scalable, high performance container management

service that supports Docker containers and allows you to easily run applications on a managed cluster of Amazon EC2 instances.

INCORRECT: "Amazon CodeDeploy" is incorrect. AWS CodeDeploy is a fully managed deployment service that automates software deployments to a variety of compute services such as Amazon EC2, AWS Lambda, and your on-premises servers.

INCORRECT: "Amazon Cognito" is incorrect. Amazon Cognito lets you add user sign-up, sign-in, and access control to your web and mobile apps quickly and easily.

References:

<https://aws.amazon.com/lambda/features/>

Question 10:

Which service can an organization use to track API activity within their account?

1. AWS CloudTrail
2. AWS CloudHSM
3. AWS IAM
4. Amazon CloudWatch

Correct Answer(s): 1

Explanation:

AWS CloudTrail is a web service that records activity made on your account and delivers log files to an Amazon S3 bucket. CloudTrail is for auditing (CloudWatch is for performance monitoring).

CloudTrail is about logging and saves a history of API calls for your AWS account. Provides visibility into user activity by recording actions taken on your account. API history enables security analysis, resource change tracking, and compliance auditing

CORRECT: "AWS CloudTrail" is the correct answer.

INCORRECT: "Amazon CloudWatch" is incorrect. Amazon CloudWatch is a monitoring service for AWS cloud resources and the applications you run on AWS. CloudWatch is for performance monitoring (CloudTrail is for auditing). Used to collect and track metrics, collect and monitor log files, and set alarms.

INCORRECT: "AWS IAM" is incorrect. AWS Identity and Access Management is an identity service that provide authentication and authorization services

INCORRECT: "AWS CloudHSM" is incorrect. AWS CloudHSM is a cloud-based hardware security module (HSM) that enables you to easily generate and use your own encryption keys on the AWS Cloud.

References:

<https://aws.amazon.com/cloudtrail/>

Question 11:

Which AWS database service provides a fully managed data warehouse that can be analyzed using SQL tools and business intelligence tools?

1. Amazon RDS
2. Amazon DynamoDB
3. Amazon ElastiCache
4. Amazon RedShift

Correct Answer(s): 4

Explanation:

Amazon RedShift is a fully managed data warehouse service designed to handle petabytes of data for analysis. Data can be analyzed with standard SQL tools and business intelligence tools. RedShift allows you to run complex analytic queries against petabytes of structured data.

CORRECT: "Amazon RedShift" is the correct answer.

INCORRECT: "Amazon RDS" is incorrect. RDS is Amazon's transactional relational database.

INCORRECT: "Amazon DynamoDB" is incorrect. DynamoDB is Amazon's non-relational database service.

INCORRECT: "Amazon ElastiCache" is incorrect. ElastiCache is a data caching service that is used to help improve the speed/performance of web applications running on AWS.

References:

<https://aws.amazon.com/redshift/>

Question 12:

Which service provides a way to convert video and audio files from their source format into versions that will playback on devices like smartphones, tablets and PCs?

1. Amazon Rekognition
2. Amazon Comprehend
3. AWS Glue
4. Amazon Elastic Transcoder

Correct Answer(s): 4

Explanation:

Amazon Elastic Transcoder is a highly scalable, easy to use and cost-effective way for developers and businesses to convert (or "transcode") video and audio files from their source format into versions that will playback on devices like smartphones, tablets and PCs.

CORRECT: "Amazon Elastic Transcoder" is the correct answer.

INCORRECT: "AWS Glue" is incorrect. AWS Glue is a fully managed extract, transform, and load (ETL) service that makes it easy for customers to prepare and load their data for analytics.

INCORRECT: "Amazon Rekognition" is incorrect. Amazon Rekognition makes it easy to add image and video analysis to your applications.

INCORRECT: "Amazon Comprehend" is incorrect. Amazon Comprehend is a natural language processing (NLP) service that uses machine learning to

find insights and relationships in text.

References:

<https://aws.amazon.com/elastictranscoder/>

Question 13:

You have been running an on-demand Amazon EC2 instance running Linux for 4hrs, 5 minutes and 6 seconds. How much time will you be billed for?

1. 4hrs, 5mins, and 6 seconds
2. 4hrs, 6mins
3. 4hrs
4. 5hrs

Correct Answer(s): 1

Explanation:

On-demand, Reserved and Spot Amazon EC2 Linux instances are charged per second with a minimum charge of 1 minute. Therefore, as the minimum has been exceeded, exactly 4hrs, 5mins and 6 seconds will be charged.

CORRECT: "4hrs, 5mins, and 6 seconds" is the correct answer.

INCORRECT: "5hrs" is incorrect as explained above.

INCORRECT: "4hrs, 6mins" is incorrect as explained above.

INCORRECT: "4hrs" is incorrect as explained above.

References:

<https://aws.amazon.com/blogs/aws/new-per-second-billing-for-ec2-instances-and-ebs-volumes/>

Question 14:

A security operations engineer needs to implement threat detection and monitoring for malicious or unauthorized behavior. Which service should be used?

1. AWS CloudHSM
2. Amazon GuardDuty
3. AWS Shield
4. AWS KMS

Correct Answer(s): 2

Explanation:

Amazon GuardDuty offers threat detection and continuous security monitoring for malicious or unauthorized behavior to help you protect your AWS accounts and workloads.

CORRECT: "AWS GuardDuty" is the correct answer.

INCORRECT: "AWS Shield" is incorrect. AWS Shield is a managed Distributed Denial of Service (DDoS) protection service.

INCORRECT: "AWS KMS" is incorrect. AWS Key Management Service gives you centralized control over the encryption keys used to protect your data.

INCORRECT: "AWS CloudHSM" is incorrect. AWS CloudHSM is a cloud-based hardware security module (HSM) that enables you to easily generate and use your own encryption keys on the AWS Cloud.

References:

<https://aws.amazon.com/guardduty/>

Question 15:

Which statement best describes Amazon Route 53?

1. Amazon Route 53 is a service that enables routing within VPCs in an account
2. Amazon Route 53 is a highly available and scalable Domain Name System (DNS) service
3. Amazon Route 53 is a service for distributing incoming connections between a fleet of registered EC2 instances
4. Amazon Route 53 enables hybrid cloud models by extending an organization's on-premise networks into the AWS cloud

Correct Answer(s): 2

Explanation:

Amazon Route 53 is a highly available and scalable cloud Domain Name System (DNS) web service. It is designed to give developers and businesses an extremely reliable and cost effective way to route end users to Internet applications by translating names like `www.example.com` into the numeric IP addresses like `192.0.2.1` that computers use to connect to each other. Amazon Route 53 is fully compliant with IPv6 as well.

CORRECT: "Amazon Route 53 is a highly available and scalable Domain Name System (DNS) service" is the correct answer.

INCORRECT: "Amazon Route 53 is a service that enables routing within VPCs in an account" is incorrect. The VPC router performs routing within a VPC.

INCORRECT: "Amazon Route 53 enables hybrid cloud models by extending an organization's on-premise networks into the AWS cloud" is incorrect. Direct Connect enables hybrid cloud models by extending an organization's on-premise networks into the AWS cloud.

INCORRECT: "Amazon Route 53 is a service for distributing incoming connections between a fleet of registered EC2 instances" is incorrect. Auto Scaling is a service for distributing incoming connections between a fleet of registered EC2 instances.

References:

<https://aws.amazon.com/route53/>

Question 16:

Which IAM entity is associated with an access key ID and secret access key?

1. IAM Group
2. IAM User
3. IAM Role
4. IAM Policy

Correct Answer(s): 2

Explanation:

An access key ID and secret access key are used to sign programmatic requests to AWS. They are associated with an IAM user.

You cannot associate an access key ID and secret access key with an IAM Group, Role or Policy.

CORRECT: "IAM User" is the correct answer.

INCORRECT: "IAM Group" is incorrect as explained above.

INCORRECT: "IAM Role" is incorrect as explained above.

INCORRECT: "IAM Policy" is incorrect as explained above.

References:

<https://docs.aws.amazon.com/general/latest/gr/aws-sec-cred-types.html#access-keys-and-secret-access-keys>

Question 17:

When using Amazon IAM, what authentication methods are available to use? (Select TWO.)

1. Server certificates
2. Client certificates
3. AES 256
4. Access keys
5. AWS KMS

Correct Answer(s): 1, 4

Explanation:

Supported authentication methods include console passwords, access keys and server certificates.

Access keys are a combination of an access key ID and a secret access key and can be used to make programmatic calls to AWS.

Server certificates are SSL/TLS certificates that you can use to authenticate with some AWS services.

CORRECT: "Access keys" is a correct answer.

CORRECT: "Server certificates" is also a correct answer.

INCORRECT: "Client certificates" is incorrect. Client certificates are not a valid IAM authentication method.

INCORRECT: "AWS KMS" is incorrect. AWS Key Management Service (KMS) is used for managing encryption keys and is not used for authentication..

INCORRECT: "AES 256" is incorrect. AES 256 is an encryption algorithm, not an authentication method.

References:

<https://docs.aws.amazon.com/IAM/latest/UserGuide/introduction.html>

Question 18:

You need to run a production process that will use several EC2 instances and run constantly on an ongoing basis. The process cannot be interrupted or restarted without issue. What EC2 pricing model would be best for this workload?

1. Flexible instances
2. On-demand instances
3. Reserved instances
4. Spot instances

Correct Answer(s): 3

Explanation:

Reserved Instance (RIs) provide you with a significant discount (up to 75%) compared to On-Demand instance pricing. You have the flexibility to change families, OS types, and tenancies while benefitting from RI pricing when you use Convertible RIs.

In this scenario for a stable process that will run constantly on an ongoing basis RIs will be the most affordable solution.

CORRECT: "Reserved instances" is the correct answer.

INCORRECT: "Spot instances" is incorrect as the instance cannot be terminated.

INCORRECT: "On-demand instances" is incorrect as this would not be the most cost-effective option.

INCORRECT: "Flexible instances" is incorrect as there's no such thing.

References:

<https://aws.amazon.com/ec2/pricing/reserved-instances/>

Question 19:

What are the benefits of using reserved instances? (Select TWO.)

1. Reduced cost
2. More flexibility
3. Uses dedicated hardware
4. Reserve capacity
5. High availability

Correct Answer(s): 1, 4

Explanation:

With reserved instances you commit to a 1- or 3-year term and get a significant discount from the on-demand rate. You can also reserve capacity in an availability zone with reserved instances.

CORRECT: "Reduced cost" is a correct answer.

CORRECT: "Reserve capacity" is also a correct answer.

INCORRECT: "More flexibility" is incorrect. You don't get more flexibility with reserved instances. If you need flexibility on-demand is better but more costly.

INCORRECT: "Uses dedicated hardware" is incorrect. Reserved instances are different to dedicated instances. Dedicated instances and dedicated hosts

use dedicated hardware but reserved instances do not.

INCORRECT: "High availability" is incorrect. You do not get high availability with reserved instances; this is a pricing model.

References:

<https://aws.amazon.com/ec2/pricing/reserved-instances/>

Question 20:

Which of the following represent economic advantages of moving to the AWS cloud? (Select TWO.)

1. Reduce the need to manage applications
2. Increase efficiencies through automation
3. Reduce the rate of change
4. Reduce the need to manage infrastructure
5. Increase time to market for new applications

Correct Answer(s): 2, 4

Explanation:

With the AWS Cloud you can increase efficiency through the use of automation and reduce the need to manage infrastructure, allowing you to concentrate on managing applications instead.

CORRECT: "Increase efficiencies through automation" is a correct answer.

CORRECT: "Reduce the need to manage infrastructure" is also a correct answer.

INCORRECT: "Reduce the need to manage applications" is incorrect. You do not reduce the need to manage applications in most cases.

INCORRECT: "Reduce the rate of change" is incorrect. Reducing the rate of change is not something organization's strive for in the cloud (usually faster development cycles are preferred) so it does not represent a valid economic advantage/

INCORRECT: "Increase time to market for new applications" is incorrect. You want to reduce not increase time to market for new applications

References:

<https://d1.awsstatic.com/whitepapers/introduction-to-aws-cloud-economics-final.pdf>

Question 21:

How can an organization track resource inventory and configuration history for the purpose of security and regulatory compliance?

1. Run a report with AWS Artifact
2. Create an Amazon CloudTrail trail
3. Configure AWS Config with the resource types
4. Implement Amazon GuardDuty

Correct Answer(s): 3

Explanation:

AWS Config is a fully-managed service that provides you with an AWS resource inventory, configuration history, and configuration change notifications to enable security and regulatory compliance.

CORRECT: "Configure AWS Config with the resource types" is the correct answer.

INCORRECT: "Create an Amazon CloudTrail trail" is incorrect. CloudTrail tracks API activity. This means it is used to monitor who does what on Amazon. It does not provide a resource inventory or configuration history.

INCORRECT: "Implement Amazon GuardDuty" is incorrect. Amazon GuardDuty offers threat detection and continuous security monitoring for malicious or unauthorized behavior to help you protect your AWS accounts and workloads.

INCORRECT: "Run a report with AWS Artifact" is incorrect. AWS Artifact is used for obtaining on-demand security and compliance reports and select online agreements. This service provides access to AWS security and compliance reports such as SOC and PCI. You don't use Artifact to track your own resource inventory and configuration history.

References:

<https://docs.aws.amazon.com/config/latest/developerguide/gs-console.html>

Question 22:

Which of the below AWS services supports automated backups as a default configuration?

1. Amazon EBS
2. Amazon RDS
3. Amazon EC2
4. Amazon S3

Correct Answer(s): 2

Explanation:

Amazon RDS automated backups allow point in time recovery to any point within the retention period down to a second. When automated backups are turned on for your DB Instance, Amazon RDS automatically performs a full daily snapshot of your data (during your preferred backup window) and captures transaction logs (as updates to your DB Instance are made). Automated backups are enabled by default and data is stored on S3 and is equal to the size of the DB

CORRECT: "Amazon RDS" is the correct answer.

INCORRECT: "Amazon S3" is incorrect. Amazon S3 objects are replicated across multiple facilities. You can also archive data onto Amazon Glacier and use versioning to maintain copies of older versions of objects

INCORRECT: "Amazon EC2" is incorrect. EC2 instances using EBS volumes can be backed up by creating a snapshot of the EBS volume.

INCORRECT: "Amazon EBS" is incorrect. EC2 instances using EBS volumes can be backed up by creating a snapshot of the EBS volume.

References:

https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/USER_WorkingWithAutomatedBackups.html

Question 23:

Which AWS support plan comes with a Technical Account Manager (TAM)?

1. Business
2. Developer
3. Basic
4. Enterprise

Correct Answer(s): 4

Explanation:

Only the Enterprise plan comes with a TAM.

CORRECT: "Enterprise" is the correct answer.

INCORRECT: "Basic" is incorrect as this plan does not come with a TAM.

INCORRECT: "Developer" is incorrect as this plan does not come with a TAM.

INCORRECT: "Business" is incorrect as this plan does not come with a TAM.

References:

<https://aws.amazon.com/premiumsupport/plans/>

Question 24:

Which AWS Support plan provides access to architectural and operational reviews, as well as 24/7 access to Cloud Support Engineers through email, online chat, and phone?

1. Developer
2. Business
3. Basic
4. Enterprise

Correct Answer(s): 4

Explanation:

Only the enterprise plan provides Well-Architected Reviews and Operational Reviews. 24/7 access to Cloud Support Engineers through email, online chat, and phone is offered on the business and enterprise plans.

CORRECT: "Enterprise" is the correct answer.

INCORRECT: "Basic" is incorrect. Basic only includes: 24x7 access to customer service, documentation, whitepapers, and support forums.

INCORRECT: "Business" is incorrect as it does not provide access to architectural and operational reviews.

INCORRECT: "Developer" is incorrect as you get support from Cloud Support Associates, not Engineers and also do not get access to architectural and operational reviews.

References:

<https://aws.amazon.com/premiumsupport/plans/>

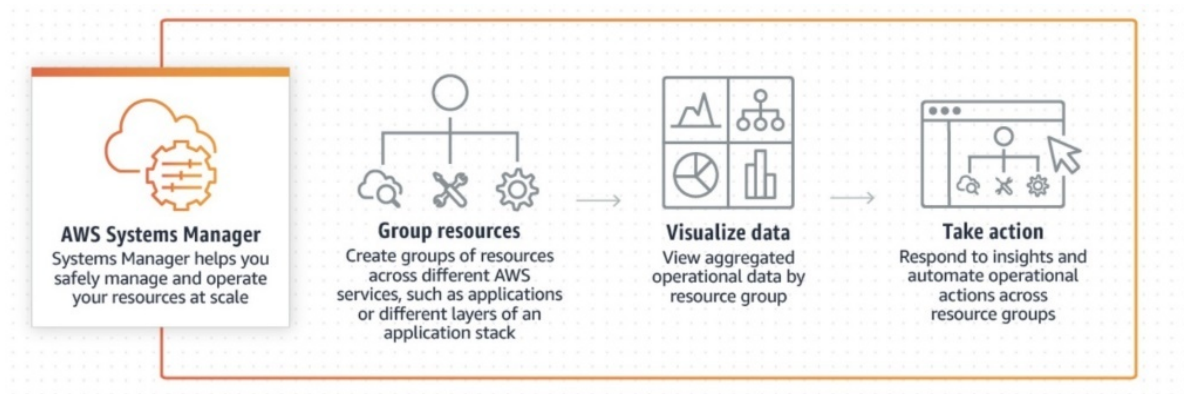
Question 25:

Which service allows an organization to view operational data from multiple AWS services through a unified user interface and automate operational tasks?

1. AWS Systems Manager
2. AWS OpsWorks
3. Amazon CloudWatch
4. AWS Config

Correct Answer(s): 1**Explanation:**

AWS Systems Manager gives you visibility and control of your infrastructure on AWS. Systems Manager 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.



CORRECT: "AWS Systems Manager" is the correct answer.

INCORRECT: "AWS Config" is incorrect. AWS Config is a fully-managed service that provides you with an AWS resource inventory, configuration history, and configuration change notifications to enable security and regulatory compliance.

INCORRECT: "AWS OpsWorks" is incorrect. AWS OpsWorks is a configuration management service that provides managed instances of Chef and Puppet.

INCORRECT: "Amazon CloudWatch" is incorrect. Amazon CloudWatch is a monitoring service for AWS cloud resources and the applications you run on AWS. You use CloudWatch for performance monitoring, not automating operational tasks.

References:

<https://aws.amazon.com/systems-manager/>

Question 26:

Under the AWS shared responsibility model, which of the following is an example of security in the AWS Cloud?

1. Physical security
2. Firewall configuration
3. Managing edge locations
4. Global infrastructure

Correct Answer(s): 2

Explanation:

Firewall configuration is an example of “security in the cloud”. This is the customer’s responsibility, not an AWS responsibility.

CORRECT: "Firewall configuration" is the correct answer.

INCORRECT: "Managing edge locations" is incorrect. This is an example of “security of the cloud” and is an AWS responsibility.

INCORRECT: "Physical security" is incorrect. This is an example of “security of the cloud” and is an AWS responsibility.

INCORRECT: "Global infrastructure" is incorrect. This is an example of “security of the cloud” and is an AWS responsibility.

References:

<https://aws.amazon.com/compliance/shared-responsibility-model/>

Question 27:

How does Amazon EC2 Auto Scaling help with resiliency?

1. By changing instance types to increase capacity
2. By automating the failover of applications
3. By distributing connections to EC2 instances
4. By launching and terminating instances as needed

Correct Answer(s): 4**Explanation:**

Amazon EC2 Auto Scaling launches and terminates instances as demand changes. This helps with resiliency and high availability as it can also be set to ensure a minimum number of instances are always available.

CORRECT: "By launching and terminating instances as needed" is the correct answer.

INCORRECT: "By distributing connections to EC2 instances" is incorrect. Auto Scaling is not responsible for distributing connections to EC2 instances, that is a job for an Elastic Load Balancer (ELB).

INCORRECT: "By changing instance types to increase capacity" is incorrect. Auto Scaling does not change the instance type. You have to create a new launch configuration if you need to increase your instance size, this is not automatic.

INCORRECT: "By automating the failover of applications" is incorrect. Auto Scaling does not do application failover.

References:

<https://aws.amazon.com/ec2/autoscaling/>

Question 28:

How does the consolidated billing feature of AWS Organizations treat Reserved Instances that were purchased by another account in the organization?

1. All accounts in the organization are treated as one account so any account can receive the hourly cost benefit
2. AWS Organizations does not support any volume or reserved instance benefits across accounts, it is just a method of aggregating bills
3. Only the master account can benefit from the hourly cost benefit of the reserved instances
4. All accounts in the organization are treated as one account for volume discounts but not for reserved instance

Correct Answer(s): 1

Explanation:

For billing purposes, the consolidated billing feature of AWS Organizations treats all the accounts in the organization as one account. This means that all accounts in the organization can receive the hourly cost benefit of Reserved Instances that are purchased by any other account.

CORRECT: "All accounts in the organization are treated as one account so any account can receive the hourly cost benefit" is the correct answer.

INCORRECT: "Only the master account can benefit from the hourly cost benefit of the reserved instances" is incorrect as explained above.

INCORRECT: "All accounts in the organization are treated as one account for volume discounts but not for reserved instances" is incorrect as explained above..

INCORRECT: "AWS Organizations does not support any volume or reserved instance benefits across accounts, it is just a method of aggregating bills" is incorrect as explained above.

References:

<https://aws.amazon.com/organizations/>

<https://docs.aws.amazon.com/awsaccountbilling/latest/aboutv2/r1-behavior.html>

Question 29:

Which of the options below are recommendations in the performance efficiency pillar of the well-architected framework? (Select TWO.)

1. Go global in days
2. Democratize advanced technologies
3. Use serverless architectures
4. Mechanical complexity
5. Rarely experiment

Correct Answer(s): 2, 3

Explanation:

The performance efficiency pillar includes the ability to use computing resources efficiently to meet system requirements and to maintain that efficiency as demand changes and technologies evolve.

There are five design principles for performance efficiency in the cloud:

- Democratize advanced technologies.
- Go global in minutes.
- Use serverless architectures.

- Experiment more often.
- Mechanical sympathy.

CORRECT: "Democratize advanced technologies" is a correct answer.

CORRECT: "Use serverless architectures" is also a correct answer.

INCORRECT: "Go global in days" is incorrect. Please refer to the design principles above.

INCORRECT: "Rarely experiment" is incorrect. Please refer to the design principles above.

INCORRECT: "Mechanical complexity" is incorrect. Please refer to the design principles above.

References:

<https://aws.amazon.com/blogs/apn/the-5-pillars-of-the-aws-well-architected-framework/>

Question 30:

You are concerned that you may be getting close to some of the default service limits for several AWS services. What AWS tool can be used to display current usage and limits?

1. AWS Personal Health Dashboard
2. AWS Trusted Advisor
3. AWS CloudWatch
4. AWS Systems Manager

Correct Answer(s): 2

Explanation:

Trusted Advisor is an online resource to help you reduce cost, increase performance, and improve security by optimizing your AWS environment. Trusted Advisor provides real time guidance to help you provision your resources following AWS best practices. Offers a Service Limits check (in the Performance category) that displays your usage and limits for some aspects of some services.

CORRECT: "AWS Trusted Advisor" is the correct answer.

INCORRECT: "AWS CloudWatch" is incorrect. Amazon CloudWatch is a monitoring and management service built for developers, system operators, site reliability engineers (SRE), and IT managers.

INCORRECT: "AWS Personal Health Dashboard" is incorrect. AWS Personal Health Dashboard provides alerts and remediation guidance when AWS is experiencing events that may impact you.

INCORRECT: "AWS Systems Manager" is incorrect. AWS Systems Manager gives you visibility and control of your infrastructure on AWS.

References:

https://docs.aws.amazon.com/general/latest/gr/aws_service_limits.html

Question 31:

What technology enables compute capacity to adjust as loads change?

1. Round robin
2. Auto Scaling
3. Automatic failover
4. Load balancing

Correct Answer(s): 2

Explanation:

Auto Scaling allows the dynamic adjustment of provisioned resources based on demand. For instance, you can use Amazon EC2 Auto Scaling to launch additional EC2 instances when CloudWatch metrics report the CPU utilization has reached a certain threshold.

CORRECT: "Auto Scaling" is the correct answer.

INCORRECT: "Load balancing" is incorrect. This technology is more focused on high availability by distributing connections to multiple instances.

INCORRECT: "Automatic failover" is incorrect. This is a technology that enables high availability by failing over to standby resources in the event of

a service disruption.

INCORRECT: "Round robin" is incorrect. This is typically associated with the Domain Name Service (DNS) where responses are provided from a pool of addresses in a sequential and circular fashion.

References:

<https://aws.amazon.com/autoscaling/>

Question 32:

What are the advantages of Availability Zones? (Select TWO.)

1. They enable the caching of data for faster delivery to end users
2. They are connected by low-latency network connections
3. They allow regional disaster recovery
4. They provide fault isolation
5. They enable you to connect your on-premises networks to AWS to form a hybrid cloud

Correct Answer(s): 2, 4

Explanation:

Each AWS region contains multiple distinct locations called Availability Zones (AZs). Each AZ is engineered to be isolated from failures in other AZs. An AZ is a data center, and in some cases, an AZ consists of multiple data centers.

AZs within a region provide inexpensive, low-latency network connectivity to other zones in the same region. This allows you to replicate your data across data centers in a synchronous manner so that failover can be automated and be transparent for your users.

CORRECT: "They provide fault isolation" is a correct answer.

CORRECT: "They are connected by low-latency network connections" is also a correct answer.

INCORRECT: "They allow regional disaster recovery" is incorrect. An AZ enables fault tolerance and high availability for your applications within a

region not across regions.

INCORRECT: "They enable the caching of data for faster delivery to end users" is incorrect. CloudFront is the technology that is used to enable caching of data for faster delivery to end users.

INCORRECT: "They enable you to connect your on-premises networks to AWS to form a hybrid cloud" is incorrect. Direct Connect is the technology that is used to connect your on-premises network to AWS to form a hybrid cloud.

References:

<https://aws.amazon.com/about-aws/global-infrastructure/>

Question 33:

Which AWS service lets you use Chef and Puppet to automate how servers are configured, deployed, and managed across your Amazon EC2 instances or on-premises compute environments?

1. AWS OpsWorks
2. AWS Elastic Beanstalk
3. AWS CloudFormation
4. AWS Systems Manager

Correct Answer(s): 1

Explanation:

AWS OpsWorks is a configuration management service that provides managed instances of Chef and Puppet. OpsWorks lets you use Chef and Puppet to automate how servers are configured, deployed, and managed across your Amazon EC2 instances or on-premises compute environments.

CORRECT: "AWS OpsWorks" is the correct answer.

INCORRECT: "AWS Elastic Beanstalk" is incorrect. This service does not use Chef or Puppet.

INCORRECT: "AWS CloudFormation" is incorrect. This service does not use Chef or Puppet.

INCORRECT: "AWS Systems Manager" is incorrect. This service does not use Chef or Puppet.

References:

<https://aws.amazon.com/opsworks/>

Question 34:

Which of the below is a fully managed Amazon search service based on open source software?

1. Amazon CloudSearch
2. Amazon Elasticsearch
3. AWS Elastic Beanstalk
4. AWS OpsWorks

Correct Answer(s): 2

Explanation:

Amazon Elasticsearch Service is a fully managed service that makes it easy for you to deploy, secure, operate, and scale Elasticsearch to search, analyze, and visualize data in real-time. Elasticsearch is based on open source software.

CORRECT: "Amazon Elasticsearch" is the correct answer.

INCORRECT: "AWS Elastic Beanstalk" is incorrect. AWS Elastic Beanstalk is used for deploying and managing EC2 instances and related services on AWS.

INCORRECT: "AWS OpsWorks" is incorrect. AWS OpsWorks is a configuration management service that provides managed instances of Chef and Puppet.

INCORRECT: "Amazon CloudSearch" is incorrect. Amazon CloudSearch is a managed service in the AWS Cloud. Unlike Elasticsearch, this is not based on open source software.

References:

<https://aws.amazon.com/elasticsearch-service/>

Question 35:

Which AWS service provides on-demand downloads of AWS security and compliance reports?

1. AWS Directory Service
2. AWS Artifact
3. Amazon Inspector
4. AWS Trusted Advisor

Correct Answer(s): 2

Explanation:

AWS Artifact is the go-to, central resource for compliance-related information that matters to you. It provides on-demand access to AWS' security and compliance reports and select online agreements.

Reports available in AWS Artifact include Service Organization Control (SOC) reports, Payment Card Industry (PCI) reports, and certifications from accreditation bodies across geographies and compliance verticals that validate the implementation and operating effectiveness of AWS security controls.

CORRECT: "AWS Artifact" is the correct answer.

INCORRECT: "AWS Directory Service" is incorrect. AWS Directory Service for Microsoft Active Directory, also known as AWS Managed Microsoft AD, is an AWS-managed directory service built on actual Microsoft Active Directory and powered by Windows Server 2012 R2.

INCORRECT: "AWS Trusted Advisor" is incorrect. AWS Trusted Advisor is an online tool that provides you real time guidance to help you provision your resources following AWS best practices.

INCORRECT: "Amazon Inspector" is incorrect. Amazon Inspector is an automated security assessment service that helps improve the security and compliance of applications deployed on AWS.

References:

<https://aws.amazon.com/artifact/>

Question 36:

What are Edge locations used for?

1. They are used by regions for inter-region connectivity
2. They are the public-facing APIs for Amazon S3
3. They are used by CloudFront for caching content
4. They are used for terminating VPN connections

Correct Answer(s): 3

Explanation:

An edge location is used by CloudFront and is the location where content is cached (separate to AWS regions/AZs). Requests are automatically routed to the nearest edge location. Edge locations are not tied to Availability Zones or regions

CORRECT: "They are used by CloudFront for caching content" is the correct answer.

INCORRECT: "They are used for terminating VPN connections" is incorrect. They have nothing to do with VPN connections.

INCORRECT: "They are the public-facing APIs for Amazon S3" is incorrect. Amazon S3 does not run from Edge Locations.

INCORRECT: "They are used by regions for inter-region connectivity" is incorrect. They are not used for connectivity between regions.

References:

<https://wa.aws.amazon.com/wat.concept.edge-location.en.html>

Question 37:

What are the charges for using Amazon Glacier? (Select TWO.)

1. Data transferred into Glacier
2. Data storage
3. Retrieval requests

4. Number of Availability Zones
5. Enhanced networking

Correct Answer(s): 2, 3

Explanation:

With Amazon Glacier you pay for storage on a per GB / month basis, retrieval requests and quantity (based on expedited, standard, or bulk), and data transfer out of Glacier.

| | S3 Standard | S3 Intelligent-Tiering* | S3 Standard-IA | S3 One Zone-IA† | S3 Glacier | S3 Glacier Deep Archive |
|------------------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|
| Designed for durability | 99.999999999% (11 9's) | 99.999999999% (11 9's) | 99.999999999% (11 9's) | 99.999999999% (11 9's) | 99.999999999% (11 9's) | 99.999999999% (11 9's) |
| Designed for availability | 99.99% | 99.9% | 99.9% | 99.5% | 99.99% | 99.99% |
| Availability SLA | 99.9% | 99% | 99% | 99% | 99.9% | 99.9% |
| Availability Zones | ≥3 | ≥3 | ≥3 | 1 | ≥3 | ≥3 |
| Minimum capacity charge per object | N/A | N/A | 128KB | 128KB | 40KB | 40KB |
| Minimum storage duration charge | N/A | 30 days | 30 days | 30 days | 90 days | 180 days |
| Retrieval fee | N/A | N/A | per GB retrieved | per GB retrieved | per GB retrieved | per GB retrieved |
| First byte latency | milliseconds | milliseconds | milliseconds | milliseconds | select minutes or hours | select hours |
| Storage type | Object | Object | Object | Object | Object | Object |
| Lifecycle transitions | Yes | Yes | Yes | Yes | Yes | Yes |

CORRECT: "Retrieval requests" is the correct answer.

CORRECT: "Data storage" is the correct answer.

INCORRECT: "Data transferred into Glacier" is incorrect. You do not pay for data transferred in and there are no minimum storage fees.

INCORRECT: "Enhanced networking" is incorrect. Enhanced networking is a feature of EC2.

INCORRECT: "Number of Availability Zones" is incorrect. You do not pay for the number of AZs.

References:

<https://aws.amazon.com/s3/storage-classes/>

<https://aws.amazon.com/glacier/pricing/>

Question 38:

Which of the options below are recommendations in the cost optimization pillar of the well-architected framework? (Select TWO.)

1. Start spending money on data center operations
2. Analyze and attribute expenditure
3. Adopt a consumption model
4. Adopt a capital expenditure model
5. Manage your services independently

Correct Answer(s): 2, 3

Explanation:

The cost optimization pillar includes the ability to avoid or eliminate unneeded cost or suboptimal resource.

There are five design principles for cost optimization in the cloud:

- Adopt a consumption model.
- Measure overall efficiency.
- Stop spending money on data center operations.
- Analyze and attribute expenditure.
- Use managed services to reduce cost of ownership.

CORRECT: "Adopt a consumption model" is the correct answer.

CORRECT: "Analyze and attribute expenditure" is the correct answer.

INCORRECT: "Adopt a capital expenditure model" is incorrect. Please refer to the design principles above.

INCORRECT: "Start spending money on data center operations" is incorrect. Please refer to the design principles above.

INCORRECT: "Manage your services independently" is incorrect. Please refer to the design principles above.

References:

<https://aws.amazon.com/blogs/apn/the-5-pillars-of-the-aws-well-architected-framework/>

Question 39:

What is a benefit of moving an on-premises database to Amazon Relational Database Service (RDS)?

1. You can run any database engine
2. There is no database administration required
3. There is no need to manage operating systems
4. You can scale vertically without downtime

Correct Answer(s): 3

Explanation:

With Amazon RDS, which is a managed service, you do not need to manage operating systems. This reduces operational costs.

CORRECT: "There is no need to manage operating systems" is the correct answer.

INCORRECT: "You can scale vertically without downtime" is incorrect. You cannot scale vertically without downtime. When scaling with RDS you must change the instance type, and this requires a short period of downtime while the instances' operating system reboots.

INCORRECT: "There is no database administration required" is incorrect. There is still database administration required in the cloud. You don't manage the underlying operating system but still need to manage your own tables and data within the DB.

INCORRECT: "You can run any database engine" is incorrect. You cannot run any database engine with RDS. The options are MySQL, Microsoft SQL, MariaDB, Oracle, PostgreSQL and Aurora.

References:

<https://aws.amazon.com/rds/features/>

Question 40:

Which service can be used to easily create multiple accounts?

1. Amazon Connect
2. AWS Organizations
3. AWS CloudFormation
4. AWS IAM

Correct Answer(s): 2**Explanation:**

AWS Organizations can be used for automating AWS account creation via the Organizations API.

CORRECT: "AWS Organizations" is the correct answer.

INCORRECT: "AWS IAM" is incorrect. You cannot use IAM for creating accounts.

INCORRECT: "AWS CloudFormation" is incorrect. You could theoretically use AWS CloudFormation to automate the account creation along with some scripting, but that is certainly not an easy way to reach this result.

INCORRECT: "Amazon Connect" is incorrect. Amazon Connect is a self-service, cloud-based contact center service that makes it easy for businesses to deliver better customer service at a lower cost.

References:

https://docs.aws.amazon.com/organizations/latest/userguide/orgs_manage_accounts_create.html

<https://aws.amazon.com/blogs/security/how-to-use-aws-organizations-to-automate-end-to-end-account-creation/>

Question 41:

Which AWS service does API Gateway integrate with to enable users from around the world to achieve the lowest possible latency for API requests and responses?

1. AWS Direct Connect
2. Amazon S3 Transfer Acceleration
3. AWS Lambda
4. Amazon CloudFront

Correct Answer(s): 4

Explanation:

Amazon CloudFront is used as the public endpoint for API Gateway. Provides reduced latency and distributed denial of service protection through the use of CloudFront.

CORRECT: "Amazon CloudFront" is the correct answer.

INCORRECT: "AWS Direct Connect" is incorrect. AWS Direct Connect is a cloud service solution that makes it easy to establish a dedicated network connection from your premises to AWS.

INCORRECT: "Amazon S3 Transfer Acceleration" is incorrect. Amazon S3 Transfer Acceleration is a bucket-level feature that enables faster data transfers to and from Amazon S3.

INCORRECT: "AWS Lambda" is incorrect. AWS Lambda lets you run code without provisioning or managing servers.

References:

<https://aws.amazon.com/cloudfront/>

Question 42:

Which database allows you to scale at the push of a button without incurring any downtime?

1. Amazon EMR
2. Amazon RDS
3. Amazon DynamoDB

4. Amazon RedShift

Correct Answer(s): 3

Explanation:

Amazon Dynamo DB is a fully managed NoSQL database service that provides fast and predictable performance with seamless scalability. Push button scaling means that you can scale the DB at any time without incurring downtime.

All other databases are based on EC2 instances and therefore you must increase the instance size to scale which will incur downtime.

CORRECT: "Amazon DynamoDB" is the correct answer.

INCORRECT: "Amazon RDS" is incorrect as explained above.

INCORRECT: "Amazon EMR" is incorrect as explained above.

INCORRECT: "Amazon RedShift" is incorrect as explained above.

References:

<https://aws.amazon.com/dynamodb/>

Question 43:

What are the benefits of using Amazon Rekognition with image files?

1. Can be used to transcode audio
2. Can be used to identify objects in an image
3. Can be used to resize images
4. Can help with image compression

Correct Answer(s): 2

Explanation:

Rekognition Image is a deep learning powered image recognition service that detects objects, scenes, and faces; extracts text; recognizes celebrities;

and identifies inappropriate content in images. It also allows you to search and compare faces.

CORRECT: "Can be used to identify objects in an image" is the correct answer.

INCORRECT: "Can be used to resize images" is incorrect. You cannot use Rekognition to resize images.

INCORRECT: "Can be used to transcode audio" is incorrect. You should use the Elastic Transcoder service to transcode audio.

INCORRECT: "Can help with image compression" is incorrect. You cannot use Rekognition to compress images.

References:

<https://aws.amazon.com/rekognition/image-features/>

Question 44:

Which service can be used to create sophisticated, interactive graph applications?

1. Amazon Neptune
2. Amazon Athena
3. AWS X-Ray
4. Amazon RedShift

Correct Answer(s): 1

Explanation:

Amazon Neptune is a fast, reliable, fully-managed graph database service that makes it easy to build and run applications that work with highly connected datasets. With Amazon Neptune, you can create sophisticated, interactive graph applications that can query billions of relationships in milliseconds.

CORRECT: "Amazon Neptune" is the correct answer.

INCORRECT: "Amazon RedShift" is incorrect. Amazon Redshift is a fast, scalable data warehouse that makes it simple and cost-effective to analyze all

your data across your data warehouse and data lake.

INCORRECT: "AWS X-Ray" is incorrect. AWS X-Ray helps developers analyze and debug production, distributed applications, such as those built using a microservices architecture.

INCORRECT: "Amazon Athena" is incorrect. Amazon Athena is an interactive query service that makes it easy to analyze data in Amazon S3 using standard SQL.

References:

<https://aws.amazon.com/neptune/>

Question 45:

Which of the options below are recommendations in the security pillar of the well-architected framework? (Select TWO.)

1. Automate security best practices
2. Enable traceability
3. Apply security at the application layer
4. Expect to be secure
5. Protect data when it is at rest only

Correct Answer(s): 1, 2

Explanation:

The security pillar includes the ability to protect information, systems, and assets while delivering business value through risk assessments and mitigation strategies

There are six design principles for security in the cloud:

- Implement a strong identity foundation.
- Enable traceability.
- Apply security at all layers.
- Automate security best practices.
- Protect data in transit and at rest.

– Prepare for security events.

CORRECT: "Enable traceability" is the correct answer.

CORRECT: "Automate security best practices" is the correct answer.

INCORRECT: "Apply security at the application layer" is incorrect. Please refer to the design principles above.

INCORRECT: "Protect data when it is at rest only" is incorrect. Please refer to the design principles above.

INCORRECT: "Expect to be secure" is incorrect. Please refer to the design principles above.

References:

<https://aws.amazon.com/blogs/apn/the-5-pillars-of-the-aws-well-architected-framework/>

Question 46:

Which service provides the ability to simply upload applications and have AWS handle the deployment details of capacity provisioning, load balancing, auto-scaling, and application health monitoring?

1. AWS Elastic Beanstalk
2. AWS OpsWorks
3. Amazon EC2 Auto Scaling
4. Amazon EC2

Correct Answer(s): 1

Explanation:

AWS Elastic Beanstalk can be used to quickly deploy and manage applications in the AWS Cloud. Developers upload applications and Elastic Beanstalk handles the deployment details of capacity provisioning, load balancing, auto-scaling, and application health monitoring. Considered a Platform as a Service (PaaS) solution. Supports Java, .NET, PHP, Node.js, Python, Ruby, Go, and Docker web applications.

CORRECT: "AWS Elastic Beanstalk" is the correct answer.

INCORRECT: "Amazon EC2" is incorrect. Amazon EC2 is an IaaS solution that provides unmanaged instances that you can deploy with a variety of operating systems.

INCORRECT: "Amazon EC2 Auto Scaling" is incorrect. Amazon EC2 Auto Scaling provides elasticity for your applications by automatically launching or terminating EC2 instances according to application load or schedules you define.

INCORRECT: "AWS OpsWorks" is incorrect. AWS OpsWorks provides a managed service for Chef and Puppet. This service is involved with automation and configuration management.

References:

<https://aws.amazon.com/elasticbeanstalk/>

Question 47:

Which descriptions are correct regarding cloud deployment models? (Select TWO.)

1. With the hybrid cloud, multiple private clouds are connected
2. With the private cloud the consumer organization typically incurs OPEX costs for usage
3. With the private cloud the consumer organization typically owns and manages the infrastructure
4. With the public cloud the consumer organization typically incurs OPEX costs for usage
5. With the public cloud the consumer organization typically owns and manages the infrastructure

Correct Answer(s): 3, 4

Explanation:

With public cloud the consumer organization typically incurs OPEX costs as they do not own the infrastructure and just pay usage costs.

CORRECT: "With the public cloud the consumer organization typically incurs OPEX costs for usage" is a correct answer.

CORRECT: "With the private cloud the consumer organization typically owns and manages the infrastructure" is also a correct answer.

INCORRECT: "With the public cloud the consumer organization typically owns and manages the infrastructure" is incorrect as that is the situation with private clouds.

INCORRECT: "With the private cloud the consumer organization typically incurs OPEX costs for usage" is incorrect. With the private cloud the consumer organization typically owns the infrastructure and will often manage it themselves or use a third-party organization to manage it for them. This model is largely CAPEX driven.

INCORRECT: "With the hybrid cloud, multiple private clouds are connected" is incorrect. Hybrid clouds are created when you connect private and public clouds together.

References:

<https://docs.aws.amazon.com/whitepapers/latest/aws-overview/six-advantages-of-cloud-computing.html>

Question 48:

How can a company separate costs for storage, Amazon EC2, Amazon S3, and other AWS services by department?

1. Create a separate VPC for each department
2. Create a separate AWS account for each department
3. Add department-specific tags to each resource
4. Use AWS Organizations

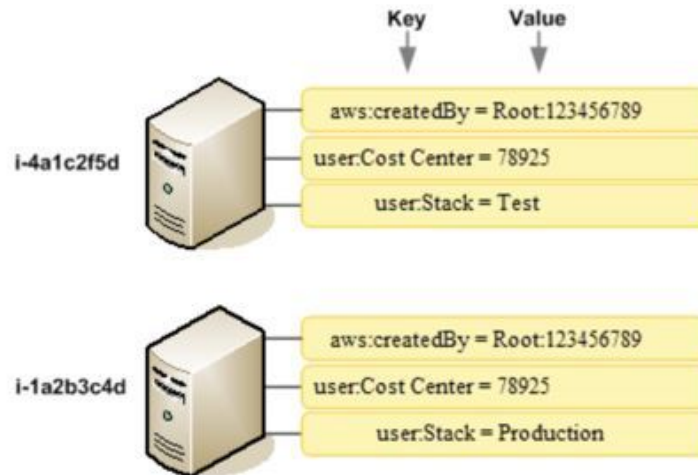
Correct Answer(s): 3

Explanation:

A tag is a label that you or AWS assigns to an AWS resource. Each tag consists of a key and a value. For each resource, each tag key must be unique, and each tag key can have only one value.

You can use tags to organize your resources, and cost allocation tags to track your AWS costs on a detailed level. After you activate cost allocation tags,

AWS uses the cost allocation tags to organize your resource costs on your cost allocation report, to make it easier for you to categorize and track your AWS costs.



AWS provides two types of cost allocation tags, an AWS generated tags and user-defined tags. AWS defines, creates, and applies the AWS generated tags for you, and you define, create, and apply user-defined tags. You must activate both types of tags separately before they can appear in Cost Explorer or on a cost allocation report.

CORRECT: "Add department-specific tags to each resource" is the correct answer.

INCORRECT: "Create a separate VPC for each department" is incorrect. This is unnecessary and would not help with separating costs.

INCORRECT: "Create a separate AWS account for each department" is incorrect. This is overly complex and unnecessary.

INCORRECT: "Use AWS Organizations" is incorrect. Consolidated billing can separate bills by account but for department based cost separation cost allocation tags should be used.

References:

<https://docs.aws.amazon.com/awsaccountbilling/latest/aboutv2/cost-alloc-tags.html>

Question 49:

To ensure the security of your AWS account, what are two AWS best practices for managing access keys? (Select TWO.)

1. Don't create any access keys, use IAM roles instead
2. Rotate access keys daily
3. Use MFA for access keys
4. Where possible, use IAM roles with temporary security credentials
5. Don't generate an access key for the root account user

Correct Answer(s): 4, 5

Explanation:

Best practices include:

- Don't generate an access key for the root account user.
- Use Temporary Security Credentials (IAM Roles) Instead of Long-Term Access Keys.
- Manage IAM User Access Keys Properly.

CORRECT: "Don't generate an access key for the root account user" is a correct answer.

CORRECT: "Where possible, use IAM roles with temporary security credentials" is also a correct answer.

INCORRECT: "Don't create any access keys, use IAM roles instead" is incorrect. You should use IAM roles where possible, but AWS do not recommend that you don't create any access keys as they also have a purpose

INCORRECT: "Rotate access keys daily" is incorrect. Rotating access keys is a recommended practice, but doing it daily would be excessive and hard to manage.

INCORRECT: "Use MFA for access keys" is incorrect. You can use MFA for securing accounts, but it does not secure access keys

References:

<https://docs.aws.amazon.com/general/latest/gr/aws-access-keys-best-practices.html>

Question 50:

What tool provides real time guidance to help you provision your resources following best practices in the areas of cost optimization, performance, security and fault tolerance?

1. AWS Inspector
2. AWS Trusted Advisor
3. AWS Personal Health Dashboard
4. AWS IAM

Correct Answer(s): 2

Explanation:

Trusted Advisor is an online resource that helps to reduce cost, increase performance and improve security by optimizing your AWS environment. Trusted Advisor provides real time guidance to help you provision your resources following best practices. Advisor will advise you on Cost Optimization, Performance, Security, and Fault Tolerance

CORRECT: "AWS Trusted Advisor" is the correct answer.

INCORRECT: "AWS Inspector" is incorrect. Inspector is an automated security assessment service that helps improve the security and compliance of applications deployed on AWS.

INCORRECT: "AWS Personal Health Dashboard" is incorrect. AWS Personal Health Dashboard provides alerts and remediation guidance when AWS is experiencing events that may impact you.

INCORRECT: "AWS IAM" is incorrect. AWS Identity and Access Management is an identity service that provide authentication and authorization services.

References:

<https://aws.amazon.com/premiumsupport/technology/trusted-advisor/>

Question 51:

Which pricing options are available when using Amazon EC2 Reserved Instances? (Select TWO.)

1. Partial upfront
2. Enterprise upfront
3. Capacity upfront
4. Mainly upfront
5. All upfront

Correct Answer(s): 1, 5

Explanation:

Amazon EC2 Reserved Instances (RI) provide a significant discount (up to 75%) compared to On-Demand pricing and provide a capacity reservation when used in a specific Availability Zone. Payment options include All Upfront, Partial Upfront, and No Upfront.

CORRECT: "All upfront" is a correct answer.

CORRECT: "Partial upfront" is also a correct answer.

INCORRECT: "Capacity upfront" is incorrect as this is not a pricing option.

INCORRECT: "Mainly upfront" is incorrect as this is not a pricing option.

INCORRECT: "Enterprise upfront" is incorrect as this is not a pricing option.

References:

<https://aws.amazon.com/ec2/pricing/reserved-instances/>

Question 52:

Which authentication method is used to authenticate programmatic calls to AWS services?

1. Access keys
2. Server certificate
3. Console password

4. Key pair

Correct Answer(s): 1

Explanation:

Access keys are a combination of an access key ID and a secret access key. They are used to make programmatic calls to AWS using the API.

CORRECT: "Access keys" is the correct answer.

INCORRECT: "Console password" is incorrect. Console passwords are used for signing users into the AWS Management Console, not for making programmatic calls to AWS services.

INCORRECT: "Server certificate" is incorrect. Server certificates can be used to authenticate to some AWS services using HTTPS.

INCORRECT: "Key pair" is incorrect. Key pairs should not be confused with access keys. Key pairs are used for authenticating to Amazon EC2 instances.

References:

https://docs.aws.amazon.com/IAM/latest/UserGuide/id_credentials_access-keys.html

Question 53:

Which of the options below are recommendations in the reliability pillar of the well-architected framework? (Select TWO.)

1. Manage change in automation
2. Use ad-hoc recovery procedures
3. Attempt to accurately estimate capacity requirements
4. Automatically recover from failure
5. Scale vertically to increase aggregate system availability

Correct Answer(s): 1, 4

Explanation:

The reliability pillar includes the ability of a system to recover from infrastructure or service disruptions, dynamically acquire computing resources to meet demand, and mitigate disruptions such as misconfigurations or transient network issues.

There are five design principles for reliability in the cloud:

- Test recovery procedures.
- Automatically recover from failure.
- Scale horizontally to increase aggregate system availability.
- Stop guessing capacity.
- Manage change in automation.

CORRECT: "Automatically recover from failure" is a correct answer.

CORRECT: "Manage change in automation" is also a correct answer.

INCORRECT: "Use ad-hoc recovery procedures" is incorrect. Please refer to the design principles above.

INCORRECT: "Scale vertically to increase aggregate system availability" is incorrect. Please refer to the design principles above.

INCORRECT: "Manage change in automation" is incorrect. Please refer to the design principles above.

References:

<https://aws.amazon.com/blogs/apn/the-5-pillars-of-the-aws-well-architected-framework/>

Question 54:

Which of the below is an example of an architectural benefit of moving to the cloud?

1. Monolithic services
2. Elasticity
3. Proprietary hardware
4. Vertical scalability

Correct Answer(s): 2

Explanation:

A key architectural benefit of moving to the cloud is that you get elasticity. This means your applications can scale as demand increases and scale back as demand decreases. This reduces cost as you only pay for what you use, when you need it.

CORRECT: "Elasticity" is the correct answer.

INCORRECT: "Monolithic services" is incorrect. Monolithic services are not a design pattern of the public cloud. Developers and architects prefer service oriented or micro-service architectures instead.

INCORRECT: "Proprietary hardware" is incorrect. You do not get to choose your hardware in AWS as the infrastructure on which your services run is managed and operated by AWS. So you cannot use proprietary hardware.

INCORRECT: "Vertical scalability" is incorrect. Vertical scalability is not unique to the cloud, nor is it something we aspire to as architects. Most of the time horizontal scalability is preferred and is something that the AWS cloud provides for many services.

References:

<https://aws.amazon.com/architecture/>

Question 55:

Which AWS services can be used as infrastructure automation tools? (Select TWO.)

1. Amazon QuickSight
2. AWS CloudFormation
3. Amazon CloudFront
4. AWS Batch
5. AWS OpsWorks

Correct Answer(s): 2, 5

Explanation:

AWS CloudFormation provides a common language for you to model and provision AWS and third party application resources in your cloud environment. AWS CloudFormation allows you to use programming languages or a simple text file to model and provision, in an automated and secure manner, all the resources needed for your applications across all regions and accounts.

AWS OpsWorks is a configuration management service that provides managed instances of Chef and Puppet. Chef and Puppet are automation platforms that allow you to use code to automate the configurations of your servers. OpsWorks lets you use Chef and Puppet to automate how servers are configured, deployed, and managed across your Amazon EC2 instances or on-premises compute environments.

CORRECT: "AWS CloudFormation" is a correct answer.

CORRECT: "AWS OpsWorks" is also a correct answer.

INCORRECT: "Amazon CloudFront" is incorrect. Amazon CloudFront is a fast content delivery network (CDN) service that securely delivers data, videos, applications, and APIs to customers globally with low latency, high transfer speeds.

INCORRECT: "AWS Batch" is incorrect. AWS Batch enables developers, scientists, and engineers to easily and efficiently run hundreds of thousands of batch computing jobs on AWS.

INCORRECT: "Amazon QuickSight" is incorrect. Amazon QuickSight is a fast, cloud-powered business intelligence service that makes it easy to deliver insights to everyone in your organization.

References:

<https://aws.amazon.com/cloudformation/>

<https://aws.amazon.com/opsworks/>

Question 56:

What is the best way to apply an organizational system to EC2 instances so they can be identified by descriptors such as purpose or department?

1. Apply tags
2. Use the instance meta-data

3. Use descriptive hostnames
4. Organize the instances into separate subnets

Correct Answer(s): 1

Explanation:

To help you manage your instances, images, and other Amazon EC2 resources, you can optionally assign your own metadata to each resource in the form of a tag. A tag is a label that you assign to an AWS resource. Each tag consists of a key and an optional value, both of which you define. Tags enable you to categorize your AWS resources in different ways, for example, by purpose, owner, or environment.

CORRECT: "Apply tags" is the correct answer.

INCORRECT: "Use descriptive hostnames" is incorrect. Using descriptive hostnames or is a messy way to try and organize resources and lacks the power and flexibility of tagging.

INCORRECT: "Organize the instances into separate subnets" is incorrect. Organizing instances into separate subnets is also not an ideal method for organizing resources.

INCORRECT: "Use the instance meta-data" is incorrect. Storing information in instance meta-data is possible but you need to retrieve the information, tags enable you to do this more easily.

References:

<https://aws.amazon.com/answers/account-management/aws-tagging-strategies/>

Question 57:

An Amazon EC2 instance running the Amazon Linux 2 AMI is billed in what increment?

1. Per CPU
2. Per GB
3. Per hour
4. Per second

Correct Answer(s): 4

Explanation:

Amazon EC2 instances running Linux are billed in one second increments, with a minimum of 60 seconds.

CORRECT: "Per second" is the correct answer.

INCORRECT: "Per hour" is incorrect. You do not pay per hour.

INCORRECT: "Per CPU" is incorrect. You do not pay per CPU.

INCORRECT: "Per GB" is incorrect. You pay for Amazon EBS on a per GB of provisioned storage basis.

References:

<https://aws.amazon.com/about-aws/whats-new/2017/10/announcing-amazon-ec2-per-second-billing/>

https://d1.awsstatic.com/whitepapers/aws_pricing_overview.pdf

Question 58:

Which feature enables fast, easy, and secure transfers of files over long distances between a client and an Amazon S3 bucket?

1. S3 Copy
2. S3 Transfer Acceleration
3. Multipart Upload
4. S3 Static Websites

Correct Answer(s): 2

Explanation:

Amazon S3 Transfer Acceleration enables fast, easy, and secure transfers of files over long distances between your client and your Amazon S3 bucket. S3 Transfer Acceleration leverages Amazon CloudFront's globally distributed AWS Edge Locations.

CORRECT: "S3 Transfer Acceleration" is the correct answer.

INCORRECT: "S3 Static Websites" is incorrect. S3 can also be used to host static websites but this does not assist with the performance of uploads to S3.

INCORRECT: "S3 Copy" is incorrect. With S3 copy you can create a copy of objects up to 5GB in size in a single atomic operation.

INCORRECT: "Multipart Upload" is incorrect. Multipart upload can be used to speed up uploads to S3.

References:

<https://docs.aws.amazon.com/AmazonS3/latest/dev/transfer-acceleration.html>

Question 59:

Which AWS services are associated with Edge Locations? (Select TWO.)

1. AWS Shield
2. Amazon CloudFront
3. AWS Config
4. Amazon EBS
5. AWS Direct Connect

Correct Answer(s): 1, 2

Explanation:

Edge Locations are parts of the Amazon CloudFront content delivery network (CDN) that are all around the world and are used to get content closer to end-users for better performance.

AWS Shield which protects against Distributed Denial of Service (DDoS) attacks is available globally on Amazon CloudFront Edge Locations.

CORRECT: "Amazon CloudFront" is a correct answer.

CORRECT: "AWS Shield" is also a correct answer.

INCORRECT: "AWS Direct Connect" is incorrect. AWS Direct Connect is a networking service used for creating a hybrid cloud between on-premises and AWS Cloud using a private network connection

INCORRECT: "Amazon EBS" is incorrect. Amazon EBS is a storage service.

INCORRECT: "AWS Config" is incorrect. AWS Config is used for evaluating the configuration state of AWS resources.

References:

<https://aws.amazon.com/shield/>

<https://aws.amazon.com/cloudfront/>

Question 60:

Which Amazon EC2 pricing model is the most cost-effective for an always-up, right-sized database server running a project that will last 1 year?

1. Spot Instances
2. Convertible Reserved Instances
3. On-Demand Instances
4. Standard Reserved Instances

Correct Answer(s): 4

Explanation:

Reserved Instances (RIs) provide you with a significant discount (up to 72%) compared to On-Demand instance pricing. Standard reserved instances offer the most cost savings. RIs are based on a 1 or 3 year contract so they are suitable for workloads that will run for the duration of the contract period.

CORRECT: "Standard Reserved Instances" is the correct answer.

INCORRECT: "Convertible Reserved Instances" is incorrect. You have the flexibility to change families, OS types, and tenancies while benefitting from RI pricing when you use Convertible RIs. However, this is not required for a right-sized server.

INCORRECT: "On-Demand Instances" is incorrect. This pricing model offers not discounts.

INCORRECT: "Spot Instances" is incorrect. Though you can achieve greater cost savings with Spot instances, the instances can be terminated when AWS need the capacity back.

References:

<https://aws.amazon.com/ec2/pricing/reserved-instances/>

Question 61:

Your CTO wants to move to cloud. What cost advantages are there to moving to cloud?

1. You can reduce your marketing costs
2. You provision only what you need and adjust to peak load
3. You get free data transfer into and out of the cloud
4. You don't need to pay for application licensing

Correct Answer(s): 2

Explanation:

One of the best benefits of cloud is that you can launch what you need to and automatically adjust your resources as demand changes. This means you only ever pay for what you're using.

CORRECT: "You provision only what you need and adjust to peak load" is the correct answer.

INCORRECT: "You can reduce your marketing costs" is incorrect. You don't reduce marketing costs when moving to the cloud, your organization still needs to do the same amount of marketing.

INCORRECT: "You don't need to pay for application licensing" is incorrect. It is not true that you don't need to pay for application licensing in the cloud. You still pay for your application licenses when running on Amazon EC2.

INCORRECT: "You get free data transfer into and out of the cloud" is incorrect. You do not get free bi-directional data transfer into and out of the cloud. AWS charge for outbound data transfer.

References:

<https://aws.amazon.com/pricing/>

Question 62:

Which statement best describes elasticity in the cloud?

1. The ability for a system to recover from the failure of a single component
2. The ability to scale resources up or down and only pay for what you use
3. A flexible model of code development that results in faster deployment times
4. A pricing model that allows upfront payments and term commitments to reduce cost

Correct Answer(s): 2

Explanation:

Elasticity is the ability to scale resources up or down and only pay for what you use. A great example is Auto Scaling which launches and terminates EC2 instances based on the amount of load.

CORRECT: "The ability to scale resources up or down and only pay for what you use" is the correct answer.

INCORRECT: "The ability for a system to recover from the failure of a single component" is incorrect. This is a description of fault tolerance.

INCORRECT: "A flexible model of code development that results in faster deployment times" is incorrect. This is a description of agile development.

INCORRECT: "A pricing model that allows upfront payments and term commitments to reduce cost" is incorrect. This is a description of reserved instances.

References:

<https://aws.amazon.com/architecture/well-architected/>

Question 63:

When using AWS Organizations with consolidated billing what are two valid best practices? (Select TWO.)

1. Use the paying account for deploying resources
2. The paying account should be used for billing purposes only
3. Always enable multi-factor authentication (MFA) on the root account
4. Always use a straightforward password on the root account
5. Never exceed the limit of 20 linked accounts

Correct Answer(s): 2, 3

Explanation:

When using AWS Organizations with consolidated billing, best practices include:

- Always enable multi-factor authentication (MFA) on the root account.
- Always use a strong and complex password on the root account.
- The Paying account should be used for billing purposes only. Do not deploy resources into the Paying account.

There is a default limit of 20 linked accounts but this can be extended and there is no reason why you should stick to a maximum of 20 accounts.

CORRECT: "Always enable multi-factor authentication (MFA) on the root account" is a correct answer.

CORRECT: "The paying account should be used for billing purposes only" is also a correct answer.

INCORRECT: "Always use a straightforward password on the root account" is incorrect as you should use a complex password.

INCORRECT: "Use the paying account for deploying resources" is incorrect as you should deploy resources in the linked accounts.

INCORRECT: "Never exceed the limit of 20 linked accounts" is incorrect as you can extend the default limit.

References:

<https://aws.amazon.com/organizations/>

Question 64:

What is a specific benefit of an Enterprise Support plan?

1. Included AWS Solutions Architect
2. Included Technical Account Manager
3. Included Cloud Support Associate
4. Included Technical Support Manager

Correct Answer(s): 2**Explanation:**

Only the Enterprise Support plan gets a Technical Account Manager (TAM). You do not get an AWS Solutions Architect with any plan.

Cloud Support Associates are provided in the Developer plan.

There's no such thing as a Technical Support Manager in the AWS support plans.

CORRECT: "Included Technical Account Manager" is the correct answer.

INCORRECT: "Included Technical Support Manager" is incorrect as explained above.

INCORRECT: "Included AWS Solutions Architect" is incorrect as explained above.

INCORRECT: "Included Cloud Support Associate" is incorrect as explained above.

References:

<https://aws.amazon.com/premiumsupport/plans/>

Question 65:

Which service can be used to cost-effectively move exabytes of data into AWS?

1. S3 Cross-Region Replication (CRR)
2. AWS Snowmobile
3. AWS Snowball
4. S3 Transfer Acceleration

Correct Answer(s): 2

Explanation:

With AWS Snowmobile you can move 100PB per snowmobile. AWS call this an “Exabyte-scale data transfer service”.

CORRECT: "AWS Snowmobile" is the correct answer.

INCORRECT: "AWS Snowball" is incorrect. With AWS Snowball you can move up to 80TB per device. AWS call this a “petabyte-scale data transfer service”.

INCORRECT: "S3 Transfer Acceleration" is incorrect. S3 Transfer Acceleration is meant speed up uploads to Amazon S3 but would not be used for exabytes of data.

INCORRECT: "S3 Cross-Region Replication (CRR)" is incorrect. S3 Cross-Region Replication is used for copying data between regions, not into AWS. It is also unsuitable for moving such as huge amount of data.

References:

<https://aws.amazon.com/snowmobile/>

AWS CERTIFIED CLOUD PRACTITIONER

TEST 4

AWS CERTIFIED CLOUD PRACTITIONER: TEST 4

Question 1:

An organization has multiple AWS accounts and uses a mixture of on-demand and reserved instances. One account has a considerable amount of

unused reserved instances. How can the organization reduce their costs? (choose 2)

1. Create an AWS Organization configuration linking the accounts
2. Use Spot instances instead
3. Switch to using placement groups
4. Redeem their reserved instances
5. Setup consolidated billing between the accounts

Correct Answer(s): 1, 5

Explanation:

AWS organizations allow you to consolidate multiple AWS accounts into an organization that you create and centrally manage. Unused reserved instances (RIs) for EC2 are applied across the group so the organization can utilize their unused reserved instance instead of consuming on-demand instances which will lower their costs.

CORRECT: "Create an AWS Organization configuration linking the accounts" is the correct answer.

CORRECT: "Setup consolidated billing between the accounts" is the correct answer.

INCORRECT: "Use Spot instances instead" is incorrect. Spot instance pricing is variable so it is not guaranteed to lower the cost and it is not suitable for workloads that cannot be unexpectedly terminated by AWS.

INCORRECT: "Redeem their reserved instances" is incorrect. You cannot redeem your reserved instances. You can sell them on the AWS marketplace, however.

INCORRECT: "Switch to using placement groups" is incorrect. Using placement groups will not lower their costs.

References:

https://docs.aws.amazon.com/organizations/latest/userguide/orgs_introduction.html

Question 2:

How does “elasticity” benefit an application design?

1. By reserving capacity to reduce cost
2. By selecting the correct storage tier for your workload
3. By automatically scaling resources based on demand
4. By reducing interdependencies between application components

Correct Answer(s): 3

Explanation:

Elasticity refers to the automatic scaling of resources based on demand. The benefit is that you provision only the necessary resources at a given time (optimizing cost) and don't have to worry about absorbing spikes in demand.

CORRECT: "By automatically scaling resources based on demand" is the correct answer.

INCORRECT: "By reducing interdependencies between application components" is incorrect. Elasticity does not reduce interdependencies between systems – this is known as loose coupling.

INCORRECT: "By selecting the correct storage tier for your workload" is incorrect. Selecting the correct storage tier would be an example of right-sizing, not elasticity.

INCORRECT: "By reserving capacity to reduce cost" is incorrect. Reserving capacity to reduce cost refers to using reservations such as EC2 Reserved Instances.

References:

<https://wa.aws.amazon.com/wat.concept.elasticity.en.html>

Question 3:

What are two examples of the advantages of cloud computing? (choose 2)

1. Increase speed and agility
2. Benefit from massive economies of scale
3. Trade operating costs for capital costs
4. Trade variable expense for capital expense

5. Secure data centers

Correct Answer(s): 1, 2

Explanation:

The 6 advantages of cloud computing are:

- Trade capital expense for variable expense.
- Benefit from massive economies of scale.
- Stop guessing about capacity.
- Increase speed and agility.
- Stop spending money running and maintaining data centers.
- Go global in minutes.

CORRECT: "Increase speed and agility" is a correct answer.

CORRECT: "Benefit from massive economies of scale" is also a correct answer.

INCORRECT: "Trade operating costs for capital costs" is incorrect as this is backwards.

INCORRECT: "Secure data centers" is incorrect. Secure data centers are not a reason to move to the cloud. Your on-premises data centers should also be secure.

INCORRECT: "Trade variable expense for capital expense" is incorrect as this is backwards.

References:

<https://docs.aws.amazon.com/whitepapers/latest/aws-overview/six-advantages-of-cloud-computing.html>

Question 4:

Which of the following are advantages of the AWS Cloud? (Select TWO.)

1. AWS manages cost planning for virtual servers
2. AWS manages the maintenance of the cloud infrastructure
3. AWS manages the security of applications built on AWS

4. AWS manages the development of applications on AWS
5. AWS manages capacity planning for physical servers

Correct Answer(s): 2, 5

Explanation:

AWS is responsible for security of the AWS Cloud as well as capacity planning and maintenance of the AWS infrastructure. This includes physical infrastructure such as data centers, servers, storage systems, and networking equipment.

CORRECT: "AWS manages the maintenance of the cloud infrastructure" is a correct answer.

CORRECT: "AWS manages capacity planning for physical servers" is also a correct answer.

INCORRECT: "AWS manages the security of applications built on AWS" is incorrect. This is the responsibility of the customer.

INCORRECT: "AWS manages the development of applications on AWS" is incorrect. This is the responsibility of the customer.

INCORRECT: "AWS manages cost planning for virtual servers" is incorrect. This is the responsibility of the customer.

References:

<https://aws.amazon.com/compliance/shared-responsibility-model/>

Question 5:

Which of the following is a benefit of moving to the AWS Cloud?

1. Capital purchases
2. Pay for what you use
3. Outsource all IT operations
4. Long term commitments

Correct Answer(s): 2

Explanation:

With the AWS cloud you pay for what you use. This is a significant advantage compared to on-premises infrastructure where you need to purchase more equipment than you need to allow for peak capacity. You also need to pay for that equipment upfront.

CORRECT: "Pay for what you use" is the correct answer.

INCORRECT: "Outsource all IT operations" is incorrect. You do not outsource all IT operations when moving to the AWS Cloud. AWS provide some higher-level managed services which reduces your operations effort but does not eliminate it.

INCORRECT: "Capital purchases" is incorrect. Capital purchases are not a benefit of moving to the cloud. The AWS Cloud is mostly an operational expenditure which is favored by many CFOs.

INCORRECT: "Long term commitments" is incorrect. You do not need to enter into long term commitments with the AWS Cloud. There are options for 1 or 3 year commitments to lower prices with some services but this is not an advantage of the cloud.

References:

<https://aws.amazon.com/pricing/>

Question 6:

Which tool can be used to create alerts when the actual or forecasted cost of AWS services exceed a certain threshold?

1. AWS Budgets
2. AWS CloudTrail
3. AWS Cost Explorer
4. AWS Cost and Usage report

Correct Answer(s): 1

Explanation:

AWS Budgets gives you the ability to set custom budgets that alert you when your costs or usage exceed (or are forecasted to exceed) your budgeted amount.

You can also use AWS Budgets to set reservation utilization or coverage targets and receive alerts when your utilization drops below the threshold you define. Reservation alerts are supported for Amazon EC2, Amazon RDS, Amazon Redshift, Amazon ElastiCache, and Amazon Elasticsearch reservations.

CORRECT: "AWS Budgets" is the correct answer.

INCORRECT: "AWS Cost Explorer" is incorrect. Cost Explorer lets you visualize and understand your costs but AWS Budgets should be used for alerting based on forecast or actual usage.

INCORRECT: "AWS Cost and Usage report" is incorrect. This is another tool that can be used to view usage for AWS services by category but AWS Budgets should be used for alerting based on forecast or actual usage.

INCORRECT: "AWS CloudTrail" is incorrect. CloudTrail is used for logging API activity, it will not alert you based on usage of AWS services.

References:

<https://aws.amazon.com/aws-cost-management/aws-budgets/>

Question 7:

Which tool can be used to provide real time guidance on provisioning resources following AWS best practices?

1. AWS Personal Health Dashboard
2. AWS Simple Monthly Calculator
3. AWS Inspector
4. AWS Trusted Advisor

Correct Answer(s): 4

Explanation:

Trusted Advisor is an online resource that helps to reduce cost, increase performance and improve security by optimizing your AWS environment. Trusted Advisor provides real time guidance to help you provision your resources following best practices.

CORRECT: "AWS Trusted Advisor" is the correct answer.

INCORRECT: "AWS Simple Monthly Calculator" is incorrect. The AWS Simple Monthly Calculator helps you to estimate the cost of using AWS services.

INCORRECT: "AWS Inspector" is incorrect. Inspector is an automated security assessment service that helps improve the security and compliance of applications deployed on AWS

INCORRECT: "AWS Personal Health Dashboard" is incorrect. AWS Personal Health Dashboard provides alerts and remediation guidance when AWS is experiencing events that may impact you.

References:

<https://aws.amazon.com/premiumsupport/technology/trusted-advisor/>

Question 8:

Which Amazon EC2 billing option gives you low cost, maximum flexibility, no upfront costs or commitment, and you only pay for what you use?

1. Reserved Instances
2. Spot Instances
3. Dedicated Host
4. On-Demand Instances

Correct Answer(s): 4

Explanation:

With On-Demand instances you pay for hours used with no commitment. There are no upfront costs so you have maximum flexibility.

CORRECT: "On-Demand Instances" is the correct answer.

INCORRECT: "Dedicated Host" is incorrect. Dedicated hosts use physically dedicated EC2 servers to isolate your workloads and are expensive

INCORRECT: "Spot Instances" is incorrect. Spot instances are used for getting a very low price which you bid on. You lose some flexibility as you are constrained by market prices and your workloads can be terminated if the market price exceeds your bid price

INCORRECT: "Reserved Instances" is incorrect. Reserved instances are based on a commitment to 1 or 3 years in exchange for a large discount.

References:

<https://aws.amazon.com/ec2/pricing/>

Question 9:

Which of the following need to be included in a total cost of ownership (TCO) analysis? (choose 2)

1. IT Manager salary
2. Company wide marketing
3. Application development
4. Data center security costs
5. Facility equipment installation

Correct Answer(s): 4, 5

Explanation:

To perform a TCO you need to document all of the costs you're incurring today to run your IT operations. That includes facilities equipment installation and data center security costs. That way you get to compare the full cost of running your IT on-premises today, to running it in the cloud.

CORRECT: "Facility equipment installation" is a correct answer.

CORRECT: "Data center security costs" is also a correct answer.

INCORRECT: "IT Manager salary" is incorrect. The IT manager's salary should not be included, as it will still need to be paid when the organization moves to the cloud.

INCORRECT: "Application development" is incorrect. Application development still needs to continue as you will still have applications running in the cloud.

INCORRECT: "Company-wide marketing" is incorrect. Company-wide marketing campaigns are unaffected by moving to the cloud

References:

<https://aws.amazon.com/tco-calculator/>

Question 10:

Where can resources be launched when configuring Amazon EC2 Auto Scaling?

1. Multiple AZs and multiple regions
2. A single subnet
3. Multiple AZs within a region
4. Multiple VPCs

Correct Answer(s): 3

Explanation:

Amazon EC2 Auto Scaling is configured within the EC2 console and can launch instances within a VPC across multiple AZs. It cannot launch resources into another AWS Region.

CORRECT: "Multiple AZs within a region" is the correct answer.

INCORRECT: "Multiple AZs and multiple regions" is incorrect as you cannot launch resources into another Region.

INCORRECT: "A single subnet" is incorrect as instances can be launched in multiple subnets.

INCORRECT: "Multiple VPCs" is incorrect as you cannot use a single Auto Scaling group to launch resources into multiple subnets.

References:

<https://aws.amazon.com/ec2/autoscaling/>

Question 11:

Which of the following security related activities are AWS customers responsible for? (choose 2)

1. Installing patches on Windows operating systems
2. Implementing data center access controls
3. Implementing IAM password policies
4. Installing patches on network devices
5. Secure disposal of faulty disk drives

Correct Answer(s): 1, 3

Explanation:

Customers are responsible for configuring their own IAM password policies and installing operating system patches on Amazon EC2 instances

AWS are responsible for installing patches on physical hardware devices, data center access controls and secure disposal of disk drives

CORRECT: "Installing patches on Windows operating systems" is the correct answer.

CORRECT: "Implementing IAM password policies" is the correct answer.

INCORRECT: "Secure disposal of faulty disk drives" is incorrect as this is an AWS responsibility.

INCORRECT: "Implementing data center access controls" is incorrect as this is an AWS responsibility.

INCORRECT: "Installing patches on network devices" is incorrect as this is an AWS responsibility.

References:

<https://aws.amazon.com/compliance/shared-responsibility-model/>

Question 12:

Which AWS service provides a quick and automated way to create and manage AWS accounts?

1. AWS Organizations
2. Amazon Connect
3. Amazon LightSail
4. AWS QuickSight

Correct Answer(s): 1

Explanation:

AWS Organizations is a web service that enables you to consolidate your multiple AWS accounts into an organization and centrally manage your accounts and their resources. The AWS Organizations API can be used to create AWS accounts and this can be automated through code.

CORRECT: "AWS Organizations" is the correct answer.

INCORRECT: "AWS QuickSight" is incorrect. Amazon QuickSight is a fast, cloud-powered business intelligence service that makes it easy to deliver insights to everyone in your organization.

INCORRECT: "Amazon LightSail" is incorrect. LightSail offers virtual servers (instances) that are easy to set up and backed by the power and reliability of AWS.

INCORRECT: "Amazon Connect" is incorrect. Amazon Connect is an easy to use omnichannel cloud contact center that helps companies provide superior customer service at a lower cost

References:

<https://docs.aws.amazon.com/organizations/latest/APIReference/Welcome.html>

Question 13:

What are the fundamental charges for an Amazon EC2 instance? (choose 2)

1. Your own AMIs
2. Private IP address
3. Basic monitoring
4. Server uptime
5. Data storage

Correct Answer(s): 4, 5

Explanation:

When using EC2 instances you are charged for the compute uptime of the instance based on the family and type you chose. You are also charged for the amount of data provisioned.

CORRECT: "Data storage" is a correct answer.

CORRECT: "Server uptime" is also a correct answer.

INCORRECT: "Basic monitoring" is incorrect. Basic monitoring is free for EC2, detailed monitoring is charged.

INCORRECT: "AMI" is incorrect. Amazon Machine Images (AMIs) are not chargeable. You can purchase chargeable AMIs via the marketplace but you are not charged for any you create.

INCORRECT: "Private IP address" is incorrect. You do not pay for private IP addresses.

References:

<https://aws.amazon.com/ec2/pricing/>

Question 14:

Which of the advantages of cloud listed below is most closely addressed by the capabilities of AWS Auto Scaling?

1. Stop guessing about capacity
2. Benefit from massive economies of scale
3. Stop spending money running and maintaining data centers
4. Go global in minutes

Correct Answer(s): 1

Explanation:

AWS Auto Scaling helps you to adapt to the demand for your application and scale up and down as needed. This means you don't have to guess capacity

upfront as you can provision what you need and allows Auto Scaling to manage the scaling.

CORRECT: "Stop guessing about capacity" is the correct answer.

INCORRECT: "Benefit from massive economies of scale" is incorrect. This is a cost advantage of cloud.

INCORRECT: "Stop spending money running and maintaining data centers" is incorrect. This is a cost advantage of moving to cloud.

INCORRECT: "Go global in minutes" is incorrect. This is a benefit of deploying cloud services globally.

References:

<https://aws.amazon.com/autoscaling/>

Question 15:

Which AWS service uses a highly secure hardware storage device to store encryption keys?

1. Amazon Cloud Directory
2. AWS IAM
3. AWS WAF
4. AWS CloudHSM

Correct Answer(s): 4

Explanation:

AWS CloudHSM is a cloud-based hardware security module (HSM) that allows you to easily add secure key storage and high-performance crypto operations to your AWS applications

CORRECT: "AWS CloudHSM" is the correct answer.

INCORRECT: "AWS IAM" is incorrect. AWS Identity and Access Management (IAM) is used for managing users, groups, and roles in AWS.

INCORRECT: "Amazon Cloud Directory" is incorrect. Amazon Cloud Directory enables you to build flexible cloud-native directories for organizing hierarchies of data along multiple dimensions.

INCORRECT: "AWS WAF" is incorrect. AWS WAF is a web application firewall that helps protect your web applications from common web exploits.

References:

<https://aws.amazon.com/cloudhsm/features/>

Question 16:

Which AWS service enables hybrid cloud storage between on-premises and the AWS Cloud?

1. AWS Storage Gateway
2. Amazon S3 Cross Region Replication (CRR)
3. Amazon Elastic File System (EFS)
4. Amazon CloudFront

Correct Answer(s): 1

Explanation:

The AWS Storage Gateway service enables hybrid cloud storage between on-premises environments and the AWS Cloud. It seamlessly integrates on-premises enterprise applications and workflows with Amazon's block and object cloud storage services through industry standard storage protocols.

CORRECT: "AWS Storage Gateway" is the correct answer.

INCORRECT: "Amazon S3 Cross Region Replication (CRR)" is incorrect. Amazon S3 CRR is used for copying data from one S3 bucket to another S3 bucket in another region. That is not an examples of hybrid cloud.

INCORRECT: "Amazon Elastic File System (EFS)" is incorrect. Amazon EFS is not a hybrid cloud storage solution. With EFS you can mount file systems from on-premises servers, however it does not offer a local cache or method of moving data into the cloud.

INCORRECT: "Amazon CloudFront" is incorrect. Amazon CloudFront is a content delivery network. It is used to get content closer to users, it is not a hybrid cloud storage solution.

References:

<https://docs.aws.amazon.com/storagegateway/latest/userguide/WhatIsStorageGateway.html>

Question 17:

Which statement is correct in relation to the AWS Shared Responsibility Model?

1. AWS are responsible for the security of regions and availability zones
2. Customers are responsible for patching storage systems
3. Customers are responsible for security of the cloud
4. AWS are responsible for encrypting customer data

Correct Answer(s): 1

Explanation:

AWS are responsible for “Security of the Cloud”. AWS is responsible for protecting the infrastructure that runs all of the services offered in the AWS Cloud. This infrastructure is composed of the hardware, software, networking, and facilities that run AWS Cloud services, and this includes regions, availability zones and edge locations.

Customers are responsible for “Security in the Cloud”. This includes encrypting customer data, patching operating systems but not patching or maintaining the underlying infrastructure.

CORRECT: "AWS are responsible for the security of regions and availability zones" is the correct answer.

INCORRECT: "Customers are responsible for patching storage systems" is incorrect as this is an AWS responsibility.

INCORRECT: "AWS are responsible for encrypting customer data" is incorrect as this is a customer responsibility.

INCORRECT: "Customers are responsible for security of the cloud" is incorrect as this is an AWS responsibility.

References:

<https://aws.amazon.com/compliance/shared-responsibility-model/>

Question 18:

Which statement is true in relation to data stored within an AWS Region?

1. Data is always replicated to another region
2. Data is automatically archived after 90 days
3. Data is not replicated outside of a region unless you configure it
4. Data is always automatically replicated to at least one other availability zone

Correct Answer(s): 3

Explanation:

Data stored within an AWS region is not replicated outside of that region automatically. It is up to customers of AWS to determine whether they want to replicate their data to other regions. You must always consider compliance and network latency when making this decision.

CORRECT: "Data is not replicated outside of a region unless you configure it" is the correct answer.

INCORRECT: "Data is always replicated to another region" is incorrect. Data is never replicated outside of a region unless you configure it.

INCORRECT: "Data is automatically archived after 90 days" is incorrect. Data is never automatically archived. You must configure data to be archived.

INCORRECT: "Data is always automatically replicated to at least one other availability zone" is incorrect. Data is not automatically replicated to at least one availability zone – this is specific to each service and you must check how your data is stored and whether the availability and durability is acceptable.

References:

https://d1.awsstatic.com/whitepapers/Security/AWS_Security_Best_Practices.pdf

Question 19:

You would like to collect custom metrics from a production application every 1 minute. What type of monitoring should you use?

1. CloudWatch with basic monitoring
2. CloudTrail with detailed monitoring
3. CloudTrail with basic monitoring
4. CloudWatch with detailed monitoring

Correct Answer(s): 4

Explanation:

Amazon CloudWatch is a monitoring service for AWS cloud resources and the applications you run on AWS. CloudWatch is for performance monitoring (CloudTrail is for auditing).

It is used to collect and track metrics, collect and monitor log files, and set alarms. Basic monitoring collects metrics every 5 minutes whereas detailed monitoring collects metrics every 1 minute

AWS CloudTrail is a web service that records activity made on your account and delivers log files to an Amazon S3 bucket. CloudTrail is for auditing, whereas CloudWatch is for performance monitoring. CloudTrail is about logging and saves a history of API calls for your AWS account

CORRECT: "CloudWatch with detailed monitoring" is the correct answer.

INCORRECT: "CloudTrail with basic monitoring" is incorrect as explained above.

INCORRECT: "CloudWatch with basic monitoring" is incorrect as explained above.

INCORRECT: "CloudTrail with detailed monitoring" is incorrect as explained above.

References:

<https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/using-cloudwatch-new.html>

Question 20:

In addition to DNS services, what other services does Amazon Route 53 provide? (choose 2)

1. Caching
2. DHCP
3. IP Routing
4. Traffic flow
5. Domain registration

Correct Answer(s): 4, 5

Explanation:

Amazon Route 53 features include domain registration, DNS, traffic flow, health checking, and failover. .Route 53 does not support DHCP, IP routing or caching.

CORRECT: "Domain registration" is the correct answer.

CORRECT: "Traffic flow" is the correct answer.

INCORRECT: "DHCP" is incorrect as explained above.

INCORRECT: "Caching" is incorrect as explained above.

INCORRECT: " IP Routing" is incorrect. The DNS features of Route 53 are called “routing policies”, however this is not traditional IP routing which is performed by routers. It is intelligent DNS that responds with different results based on certain factors such as latency, weight, or failover configuration.

References:

<https://aws.amazon.com/route53/>

Question 21:

When performing a total cost of ownership (TCO) analysis between on-premises and the AWS Cloud, which factors are only relevant to on-premises deployments? (choose 2)

1. Hardware procurement teams
2. Application licensing
3. Operating system licensing
4. Database administration
5. Facility operations costs

Correct Answer(s): 1, 5

Explanation:

Facility operations and hardware procurement costs are something you no longer need to pay for in the AWS Cloud. These factors therefore must be included as an on-premise cost so you can understand the cost of staying in your own data centers.

Database administration, operating system licensing and application licensing will still be required in the AWS Cloud.

CORRECT: "Hardware procurement teams" is a correct answer.

CORRECT: "Facility operations costs" is also a correct answer.

INCORRECT: "Operating system licensing" is incorrect as these are factors that are relevant to both on-premise and the cloud.

INCORRECT: "Database administration" is incorrect as these are factors that are relevant to both on-premise and the cloud.

INCORRECT: "Application licensing" is incorrect as these are factors that are relevant to both on-premise and the cloud.

References:

https://media.amazonwebservices.com/AWS_TCO_Web_Applications.pdf

Question 22:

What is the scope of an Amazon Virtual Private Cloud (VPC)?

1. It spans all Availability Zones within a region

2. It spans multiple subnets
3. It spans all Availability Zones in all regions
4. It spans a single CIDR block

Correct Answer(s): 1

Explanation:

A virtual private cloud (VPC) is a virtual network dedicated to your AWS account. A VPC spans all the Availability Zones in the region.

CORRECT: "It spans all Availability Zones within a region" is the correct answer.

INCORRECT: "It spans a single CIDR block" is incorrect. You can have multiple CIDR blocks in a VPC.

INCORRECT: "It spans multiple subnets" is incorrect. A VPC spans AZs, subnets are created within AZs

INCORRECT: "It spans all Availability Zones in all regions" is incorrect as it is within a single Region.

References:

<https://docs.aws.amazon.com/vpc/latest/userguide/what-is-amazon-vpc.html>

Question 23:

To reduce the price of your Amazon EC2 instances, which term lengths are available for reserved instances? (choose 2)

1. 3 years
2. 2 years
3. 4 years
4. 1 year

5 years

Correct Answer(s): 1, 4

Explanation:

Reserved instances provide significant discounts, up to 75% compared to On-Demand pricing, by paying for capacity ahead of time. They are good for applications that have predictable usage, that need reserved capacity, and for customers who can commit to a 1 or 3-year term.

CORRECT: "1 year" is a correct answer.

CORRECT: "3 years" is also a correct answer.

INCORRECT: "4 years" is incorrect as only 1 and 3 year options are available.

INCORRECT: "5 years" is incorrect as only 1 and 3 year options are available.

INCORRECT: "2 years" is incorrect as only 1 and 3 year options are available.

References:

<https://aws.amazon.com/ec2/pricing/reserved-instances/>

Question 24:

Which of the following is an architectural best practice recommended by AWS?

1. Design for failure
2. Think servers, not services
3. Design for success
4. Use manual operational processes

Correct Answer(s):

Explanation:

It is recommended that you design for failure. This means always considering what would happen if a component of an application fails and ensuring there is resilience in the architecture.

CORRECT: "Design for failure" is the correct answer.

INCORRECT: "Design for success" is incorrect. Design for success sounds good, but this is not an architectural best practice. As much as we want our

applications to be successful, we should always be cognizant of the potential failures that might occur and ensure we are prepared for them.

INCORRECT: "Think servers, not services" is incorrect. AWS do not recommend that you "think servers, not services". What they do recommend is that you "think services, not servers". This means that you should consider using managed services and serverless services rather than just using Amazon EC2.

INCORRECT: "Use manual operational processes" is incorrect. You should not use manual operational processes; this is not an architectural best practice. You should automate as much as possible in the cloud.

References:

<https://aws.amazon.com/architecture/well-architected/>

Question 25:

How can consolidated billing within AWS Organizations help lower overall monthly expenses?

1. By providing a consolidated view of monthly billing across multiple accounts
2. By pooling usage across multiple accounts to achieve a pricing tier discount
3. By automating the creation of new accounts through APIs
4. By leveraging service control policies (SCP) for centralized service management

Correct Answer(s): 2

Explanation:

You can use the consolidated billing feature in AWS Organizations to consolidate billing and payment for multiple AWS accounts or multiple Amazon Internet Services Pvt. Ltd (AISPL) accounts. Every organization in AWS Organizations has a master (payer) account that pays the charges of all the member (linked) accounts.

Consolidated billing has the following benefits:

- One bill – You get one bill for multiple accounts.
- Easy tracking – You can track the charges across multiple accounts and download the combined cost and usage data.
- Combined usage – You can combine the usage across all accounts in the organization to share the volume pricing discounts, Reserved Instance discounts, and Savings Plans. This can result in a lower charge for your project, department, or company than with individual standalone accounts.
- No extra fee – Consolidated billing is offered at no additional cost.

CORRECT: "By pooling usage across multiple accounts to achieve a pricing tier discount" is the correct answer.

INCORRECT: "By providing a consolidated view of monthly billing across multiple accounts" is incorrect. This is useful, but doesn't lower costs.

INCORRECT: "By automating the creation of new accounts through APIs" is incorrect as this does not lower costs.

INCORRECT: "By leveraging service control policies (SCP) for centralized service management" is incorrect. SCPs are used for controlling the API actions you can use, not for lowering costs.

References:

<https://docs.aws.amazon.com/awsaccountbilling/latest/aboutv2/consolidated-billing.html>

Question 26:

What does an organization need to do in Amazon IAM to enable user access to services being launched in new region?

1. Nothing, IAM is global
2. Enable global mode in IAM to provision the required access
3. Create new user accounts in the new region
4. Update the user accounts to allow access from another region

Correct Answer(s): 1

Explanation:

IAM is used to securely control individual and group access to AWS resources. IAM is universal (global) and does not apply to regions.

CORRECT: "Nothing, IAM is global" is the correct answer.

INCORRECT: "Enable global mode in IAM to provision the required access" is incorrect as you do not need to do anything to use IAM globally.

INCORRECT: "Update the user accounts to allow access from another region" is incorrect as you don't need to update user accounts.

INCORRECT: "Create new user accounts in the new region" is incorrect as IAM is global.

References:

<https://docs.aws.amazon.com/IAM/latest/UserGuide/introduction.html>

Question 27:

What billing timeframes are available for Amazon EC2 on-demand instances? (choose 2)

1. Per hour
2. Per minute
3. Per week
4. Per second
5. Per day

Correct Answer(s): 1, 4

Explanation:

With EC2 you are billed either by the second, for some Linux instances, or by the hour for all other instance types.

CORRECT: "Per second" is a correct answer.

CORRECT: "Per hour" is also a correct answer.

INCORRECT: "Per week" is incorrect as explained above.

INCORRECT: "Per day" is incorrect as explained above.

INCORRECT: "Per minute" is incorrect as explained above.

References:

<https://aws.amazon.com/premiumsupport/knowledge-center/ec2-instance-hour-billing/>

Question 28:

Which type of security control can be used to deny network access from a specific IP address?

1. Security Group
2. AWS WAF
3. AWS Shield
4. Network ACL

Correct Answer(s): 4

Explanation:

A Network ACL supports allow and deny rules. You can create a deny rule specifying a specific IP address that you would like to block.

| Security Group | Network ACL |
|--|---|
| Operates at the instance (interface) level | Operates at the subnet level |
| Supports allow rules only | Supports allow and deny rules |
| Stateful | Stateless |
| Evaluates all rules | Processes rules in order |
| Applies to an instance only if associated with a group | Automatically applies to all instances in the subnets its associated with |

CORRECT: "Network ACL" is the correct answer.

INCORRECT: "AWS Shield" is incorrect. AWS Shield is a managed Distributed Denial of Service (DDoS) protection service

INCORRECT: "AWS WAF" is incorrect. AWS WAF is a web application firewall

INCORRECT: "Security Group" is incorrect. A Security Group only supports allow rules

References:

<https://docs.aws.amazon.com/vpc/latest/userguide/vpc-network-acls.html>

Question 29:

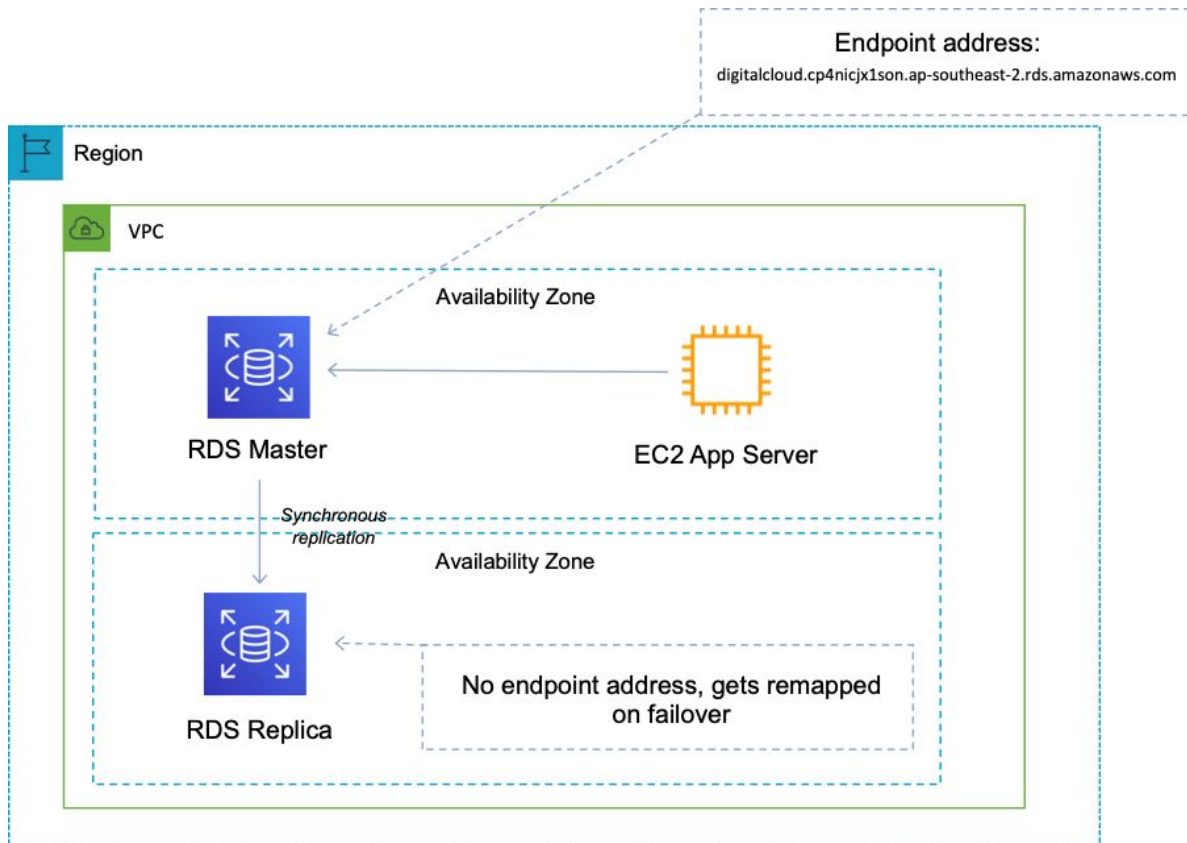
Which Amazon RDS deployment type is best used to enable fault tolerance in the event of the failure of an availability zone?

1. Write Replicas
2. Multiple Availability Zones
3. Read Replicas
4. Multiple Regions

Correct Answer(s): 2

Explanation:

Multi AZ provides a mechanism to failover the RDS database to another synchronously replicated copy in the event of the failure of an AZ. The endpoint address for the RDS instances gets remapped to the standby instance as can be seen in the image below:



CORRECT: "Multiple Availability Zones" is the correct answer.

INCORRECT: "Multiple Regions" is incorrect. There is no option for multiple region failover of Amazon RDS.

INCORRECT: "Read Replicas" is incorrect. Read replicas are used for offloading read traffic from a primary database but cannot be used for writing. You can failover the DB by promoting a read replica in a DR situation but this is not the best answer as the multi-AZ feature is preferred.

INCORRECT: "Write Replicas" is incorrect. There is no such thing as write replicas.

References:

<https://aws.amazon.com/rds/features/multi-az/>

Question 30:

What are the fundamental charges for Elastic Block Store (EBS) volumes? (choose 2)

1. The amount of data storage consumed
2. The amount of data storage provisioned
3. Inbound data transfer
4. Number of snapshots
5. Provisioned IOPS

Correct Answer(s): 2, 5

Explanation:

With EBS volumes you are charged for the amount of data provisioned (not consumed) per month. This means you can have empty space within a volume and you still pay for it. With provisioned IOPS volumes you are also charged for the amount you provision in IOPS

CORRECT: "The amount of data storage provisioned" is a correct answer.

CORRECT: "Provisioned IOPS" is also a correct answer.

INCORRECT: "The amount of data storage consumed" is incorrect as you pay for the amount provisioned.

INCORRECT: "Number of snapshots" is incorrect. You pay for the storage consumed by snapshots, not by the number of snapshots.

INCORRECT: "Inbound data transfer" is incorrect as you do not pay for data ingress.

References:

<https://aws.amazon.com/ebs/pricing/>

Question 31:

Which AWS service should be used to create a billing alarm?

1. Amazon CloudWatch
2. AWS CloudTrail
3. Amazon QuickSight
4. AWS Trusted Advisor

Correct Answer(s): 1

Explanation:

You can monitor your estimated AWS charges by using Amazon CloudWatch. When you enable the monitoring of estimated charges for your AWS account, the estimated charges are calculated and sent several times daily to CloudWatch as metric data.

Billing metric data is stored in the US East (N. Virginia) Region and represents worldwide charges. This data includes the estimated charges for every service in AWS that you use, in addition to the estimated overall total of your AWS charges.

The alarm triggers when your account billing exceeds the threshold you specify. It triggers only when actual billing exceeds the threshold. It doesn't use projections based on your usage so far in the month.

CORRECT: "Amazon CloudWatch" is the correct answer.

INCORRECT: "AWS Trusted Advisor" is incorrect. AWS Trusted Advisor is an online tool that provides you real time guidance to help you provision your resources following AWS best practices.

INCORRECT: "AWS CloudTrail" is incorrect. CloudTrail logs API activity, not performance or billing metrics.

INCORRECT: "Amazon QuickSight" is incorrect. Amazon QuickSight is a fast, cloud-powered business intelligence service that makes it easy to deliver insights to everyone in your organization.

References:

https://docs.aws.amazon.com/AmazonCloudWatch/latest/monitoring/monitor_estimated_charges_with_cloudwatch.html

Question 32:

Which of the below are good use cases for a specific Amazon EC2 pricing model? (choose 2)

1. Spot for consistent load over a long term
2. On-demand for regulatory requirements that do not allow multi-tenant virtualization
3. On-demand for ad-hoc requirements that cannot be interrupted

4. Reserved instances for steady state predictable usage
5. Reserved instances for applications with flexible start and end times

Correct Answer(s): 3, 4

Explanation:

Typical use cases for the pricing models listed are:

On-demand: Good for users that want the low cost and flexibility of EC2 without any up-front payment or long-term commitment. Applications with short term, spiky, or unpredictable workloads that cannot be interrupted

Reserved: Applications with steady state or predictable usage or that require reserved capacity

Spot: Applications that have flexible start and end times and that are only feasible at very low compute prices. May be terminated

Dedicated hosts: Useful for regulatory requirements that may not support multi-tenant virtualization. Great for licensing which does not support multi-tenancy or cloud deployments

CORRECT: "Reserved instances for steady state predictable usage" is a correct answer.

CORRECT: "On-demand for ad-hoc requirements that cannot be interrupted" is also a correct answer.

INCORRECT: "On-demand for regulatory requirements that do not allow multi-tenant virtualization" is incorrect. Please refer to the typical use cases above.

INCORRECT: "Spot for consistent load over a long term" is incorrect. Please refer to the typical use cases above.

INCORRECT: "Reserved instances for applications with flexible start and end times" is incorrect. Please refer to the typical use cases above.

References:

<https://aws.amazon.com/ec2/pricing/>

Question 33:

Which of the below are components that can be configured in the VPC section of the AWS management console? (choose 2)

1. DNS records
2. EBS volumes
3. Subnet
4. Elastic Load Balancer
5. Endpoints

Correct Answer(s): 3, 5

Explanation:

You can configure subnets and endpoints within the VPC section of AWS management console.

EBS volumes and ELB must be configured in the EC2 section of the AWS management console and DNS records must be configured in Amazon Route 53.

CORRECT: "Subnet" is a correct answer.

CORRECT: "Endpoints" is also a correct answer.

INCORRECT: "EBS volumes" is incorrect as explained above.

INCORRECT: "DNS records" is incorrect as explained above.

INCORRECT: "Elastic Load Balancer" is incorrect as explained above.

References:

<https://aws.amazon.com/vpc/>

Question 34:

Which service can be added to a database to provide improved performance for some requests?

1. Amazon RDS
2. Amazon EFS
3. Amazon ElastiCache

4. Amazon RedShift

Correct Answer(s): 3

Explanation:

Amazon ElastiCache provides in-memory caching which improves performance for read requests when the data is cached in ElastiCache. ElastiCache can be placed in front of your database.

CORRECT: "Amazon ElastiCache" is the correct answer.

INCORRECT: "Amazon RedShift" is incorrect. Amazon RedShift is a data warehouse that is used for performing analytics on data.

INCORRECT: "Amazon EFS" is incorrect. Amazon EFS is an Elastic File System, not a caching service.

INCORRECT: "Amazon RDS" is incorrect. Amazon RDS is a relational SQL type of database. It is not a service that you place in front of another database to improve performance. Instead you might use RDS as your back-end database and use ElastiCache in front of it to improve performance through its in-memory caching.

References:

<https://aws.amazon.com/elasticache/>

Question 35:

What is the benefit of using fully managed services compared to deploying 3rd party software on EC2?

1. Reduced operational overhead
2. Improved security
3. You have greater control and flexibility
4. You don't need to back-up your data

Correct Answer(s): 1

Explanation:

Fully managed services reduce your operational overhead as AWS manage not just the infrastructure layer but the service layers above it. Examples are Amazon Aurora and Amazon ElastiCache where the database is managed for you.

CORRECT: "Reduced operational overhead" is the correct answer.

INCORRECT: "You don't need to back-up your data" is incorrect. You do still need to backup your data. For instance, with Amazon ElastiCache it's up to you to configure backups to S3.

INCORRECT: "Improved security" is incorrect. Security is not necessarily improved by managing your own software stack. AWS are extremely good at securing their services and there is arguably less chance that they will expose vulnerabilities than a customer who deploys their own applications.

INCORRECT: "You have greater control and flexibility" is incorrect. You do not have greater control and flexibility with fully managed services. AWS take more responsibility for providing the service and you therefore have fewer options. For example you may not be able to configure the performance parameters of a database as you'd like to or use your own backup or operational software.

Question 36:

1. Which service can be used to assign a policy to a group?
2. AWS Shield
3. AWSn STS
4. AWS IAM
5. Amazon Cognito

Correct Answer(s): 4

Explanation:

IAM is used to securely control individual and group access to AWS resources. Groups are collections of users and have policies attached to them. You can use IAM to attach a policy to a group

CORRECT: "AWS IAM" is the correct answer.

INCORRECT: "Amazon Cognito" is incorrect. Amazon Cognito is used for authentication using mobile apps

INCORRECT: "AWS STS" is incorrect. The AWS Security Token Service (STS) is a web service that enables you to request temporary, limited-privilege credentials for IAM users or for users that you authenticate (federated users)

INCORRECT: "AWS Shield" is incorrect. AWS Shield is a managed Distributed Denial of Service (DDoS) protection service that safeguards applications running on AWS.

References:

<https://docs.aws.amazon.com/IAM/latest/UserGuide/introduction.html>

Question 37:

Which AWS service lets you add user sign up, sign-in and access control to web and mobile apps?

1. AWS CloudHSM
2. Amazon Cognito
3. AWS Artifact
4. AWS Directory Service

Correct Answer(s): 2

Explanation:

Amazon Cognito lets you add user sign-up, sign-in, and access control to your web and mobile apps quickly and easily. Amazon Cognito scales to millions of users and supports sign-in with social identity providers, such as Facebook, Google, and Amazon, and enterprise identity providers via SAML 2.0.

CORRECT: "AWS Cognito" is the correct answer.

INCORRECT: "AWS Artifact" is incorrect. AWS Artifact is your go-to, central resource for compliance-related information that matters to you.

INCORRECT: "AWS CloudHSM" is incorrect. AWS CloudHSM is a cloud-based hardware security module (HSM) that enables you to easily generate and use your own encryption keys on the AWS Cloud

INCORRECT: "AWS Directory Service" is incorrect. AWS Directory Service for Microsoft Active Directory, also known as AWS Managed Microsoft AD, enables your directory-aware workloads and AWS resources to use managed Active Directory in the AWS Cloud.

References:

<https://aws.amazon.com/cognito/>

Question 38:

Which AWS service allows you to automate the evaluation of recorded configurations against desired configuration?

1. AWS OpsWorks
2. AWS Config
3. AWS Service Catalog
4. AWS CloudFormation

Correct Answer(s): 2

Explanation:

AWS Config is a service that enables you to assess, audit, and evaluate the configurations of your AWS resources. Config continuously monitors and records your AWS resource configurations and allows you to automate the evaluation of recorded configurations against desired configurations.

CORRECT: "AWS Config" is the correct answer.

INCORRECT: "AWS OpsWorks" is incorrect. AWS OpsWorks is a configuration management service that provides managed instances of Chef and Puppet.

INCORRECT: "AWS Service Catalog" is incorrect. AWS Service Catalog allows organizations to create and manage catalogs of IT services that are approved for use on AWS.

INCORRECT: "AWS CloudFormation" is incorrect. AWS CloudFormation provides a common language for you to describe and provision all the infrastructure resources in your cloud environment.

References:

<https://aws.amazon.com/config/>

Question 39:

What does an organization need to do to move to another AWS region?

1. Just start deploying resources in the additional region
2. Create a separate IAM account for that region
3. Apply for another AWS account in that region
4. Submit an application to extend their account to the additional region

Correct Answer(s): 1

Explanation:

You don't need to do anything except start deploying resources in the new region. With the AWS cloud you can use any region around the world at any time. There is no need for a separate account, and IAM is a global service.

CORRECT: "Just start deploying resources in the additional region" is the correct answer.

INCORRECT: "Create a separate IAM account for that region" is incorrect as IAM is a global service.

INCORRECT: "Apply for another AWS account in that region" is incorrect as you can use IAM across Regions and do not need another account.

INCORRECT: "Submit an application to extend their account to the additional region" is incorrect as you do not need to extend accounts across Regions.

References:

<https://aws.amazon.com/iam/faqs/>

Question 40:

What are two components of Amazon S3? (choose 2)

1. Buckets
2. Directories
3. Objects
4. Block devices
5. File systems

Correct Answer(s): 1, 3

Explanation:

Amazon S3 is an object-based storage system that is accessed using a RESTful API over HTTP(S). It consists of buckets, which are root level folders, and objects, which are the files, images etc. that you upload

The terms directory, file system and block device do not apply to Amazon S3.

CORRECT: "Buckets" is a correct answer.

CORRECT: "Objects" is also a correct answer.

INCORRECT: "Directories" is incorrect as explained above.

INCORRECT: "Block devices" is incorrect as explained above.

INCORRECT: "File systems" is incorrect as explained above.

References:

<https://docs.aws.amazon.com/AmazonS3/latest/dev/Welcome.html>

Question 41:

The AWS acceptable use policy for penetration testing allows?

1. Authorized security assessors to perform penetration tests against any AWS customer without authorization
2. Customers to carry out security assessments or penetration tests against their AWS infrastructure after obtaining authorization from AWS

3. AWS to perform penetration testing against customer resources without notification
4. Customers to carry out security assessments or penetration tests against their AWS infrastructure without prior approval for selected services

Correct Answer(s): 4

Explanation:

AWS customers are welcome to carry out security assessments or penetration tests against their AWS infrastructure without prior approval for the following eight services:

- Amazon EC2 instances, NAT Gateways, and Elastic Load Balancers.
- Amazon RDS.
- Amazon CloudFront.
- Amazon Aurora.
- Amazon API Gateways.
- AWS Lambda and Lambda Edge functions.
- Amazon LightSail resources.
- Amazon Elastic Beanstalk environments.

CORRECT: "Customers to carry out security assessments or penetration tests against their AWS infrastructure without prior approval for selected services" is the correct answer.

INCORRECT: "Customers to carry out security assessments or penetration tests against their AWS infrastructure after obtaining authorization from AWS" is incorrect as you do not need authorization.

INCORRECT: "AWS to perform penetration testing against customer resources without notification" is incorrect as AWS will not perform penetration testing on customer resources.

INCORRECT: "Authorized security assessors to perform penetration tests against any AWS customer without authorization" is incorrect. This is not something that is authorized

References:

<https://aws.amazon.com/security/penetration-testing/>

Question 42:

Which Compute service should be used for running a Linux operating system upon which you will install custom software?

1. AWS Lambda
2. Amazon EKS
3. Amazon EC2
4. Amazon ECS

Correct Answer(s): 3

Explanation:

Amazon EC2 should be used when you need access to a full operating system instance that you can manage.

Amazon Elastic Container Service (ECS) and Amazon Elastic Container Service for Kubernetes (EKS) are used for running software containers, not full operating system instances.

AWS Lambda runs code as functions in response to events.

CORRECT: "Amazon EC2" is the correct answer.

INCORRECT: "Amazon ECS" is incorrect as explained above.

INCORRECT: "Amazon EKS" is incorrect as explained above.

INCORRECT: "AWS Lambda" is incorrect as explained above.

References:

<https://aws.amazon.com/ec2/>

Question 43:

When using Amazon RDS databases, which items are you charged for? (choose 2)

1. Inbound data transfer
2. Single AZ
3. Outbound data transfer
4. Multi AZ
5. Backup up to the DB size

Correct Answer(s): 3, 4

Explanation:

With Amazon RDS you are charged for the type and size of database, the uptime, any additional storage of backup (above the DB size), requests, deployment type (e.g. you pay for multi AZ), and data transfer outbound.

CORRECT: "Multi AZ" is a correct answer.

CORRECT: "Outbound data transfer" is also a correct answer.

INCORRECT: "Inbound data transfer" is incorrect as you do not pay for inbound data.

INCORRECT: "Single AZ" is incorrect as this is not something you pay an additional charge for.

INCORRECT: "Backup up to the DB size" is incorrect as you do not pay for backup storage up to the size of the database. You only pay for backup storage in excess of the database size.

References:

<https://aws.amazon.com/rds/pricing/>

Question 44:

Which storage type can be mounted using the NFS protocol to many EC2 instances simultaneously?

1. Amazon EBS
2. Amazon EFS
3. Amazon S3
4. Amazon Instance Store

Correct Answer(s): 2

Explanation:

EFS is a fully-managed service that makes it easy to set up and scale file storage in the Amazon Cloud. EFS uses the NFSv4.1 protocol. Can concurrently connect 1 to 1000s of EC2 instances, from multiple AZs.

CORRECT: "Amazon EFS" is the correct answer.

INCORRECT: "Amazon Instance Store" is incorrect. Amazon Instance Store is a type of ephemeral block-based volume that can be attached to a single EC2 instance at a time.

INCORRECT: "Amazon EBS" is incorrect. EBS volumes can only be attached to a single EC2 instance at a time and are block devices (not NFS).

INCORRECT: "Amazon S3" is incorrect. Amazon S3 is an object store and is connected to using a RESTful protocol over HTTP.

References:

<https://aws.amazon.com/efs/>

Question 45:

What is the main benefit of the principle of “loose coupling”?

1. Automate the deployment of infrastructure using code
2. Reduce operational complexity
3. Enables applications to scale automatically based on current demand
4. Reduce interdependencies so a failure in one component does not cascade to other components

Correct Answer(s): 4

Explanation:

As application complexity increases, a desirable attribute of an IT system is that it can be broken into smaller, loosely coupled components. This means that IT systems should be designed in a way that reduces interdependencies

—a change or a failure in one component should not cascade to other components.

CORRECT: "Reduce interdependencies so a failure in one component does not cascade to other components" is the correct answer.

INCORRECT: "Reduce operational complexity" is incorrect. Loose coupling does not reduce operational complexity. In fact, it may increase complexity as you have more services running and more interactions.

INCORRECT: "Automate the deployment of infrastructure using code" is incorrect. This is an example of "Infrastructure as code" – services such as CloudFormation provide this functionality.

INCORRECT: "Enables applications to scale automatically based on current demand" is incorrect. This is an example of Elasticity.

References:

<https://aws.amazon.com/architecture/well-architected/>

Question 46:

What types of monitoring can Amazon CloudWatch be used for? (choose 2)

1. API access
2. Data center
3. Operational health
4. Infrastructure
5. Application performance

Correct Answer(s): 3, 5

Explanation:

Amazon CloudWatch is a monitoring service for AWS cloud resources and the applications you run on AWS. CloudWatch performs performance monitoring and can monitor custom metrics generated by applications and the operational health of your AWS resources

Infrastructure and data center monitoring is not accessible to AWS customers

CORRECT: "Operational health" is a correct answer.

CORRECT: "Application performance" is also a correct answer.

INCORRECT: "Infrastructure" is incorrect as this monitoring is not accessible to AWS customers.

INCORRECT: "Data center" is incorrect as this monitoring is not accessible to AWS customers.

INCORRECT: "API access" is incorrect. AWS CloudTrail monitors API access

References:

<https://docs.aws.amazon.com/AmazonCloudWatch/latest/monitoring/WhatIsCloudWatch.html>

Question 47:

Which of the following is an advantage of cloud computing compared to deploying your own infrastructure on-premise?

1. Paying only for what you use
2. Ability to choose bespoke infrastructure configurations
3. Spend using a CAPEX model
4. Flexibility to choose your own hardware

Correct Answer(s): 1

Explanation:

With AWS you only pay for what you use. However, you cannot choose your own hardware/infrastructure and the payment model is operational (OPEX) not capital (CAPEX).

CORRECT: "Paying only for what you use" is the correct answer.

INCORRECT: "Flexibility to choose your own hardware" is incorrect as explained above.

INCORRECT: "Spend using a CAPEX model" is incorrect as explained above.

INCORRECT: "Ability to choose bespoke infrastructure configurations" is incorrect as explained above.

References:

Question 48:

An organization has an on-premises cloud and accesses their AWS Cloud over the Internet. How can they create a private hybrid cloud connection that avoids the internet?

1. AWS Managed VPN
2. AWS VPN CloudHub
3. AWS Direct Connect
4. AWS VPC Endpoint

Correct Answer(s): 3

Explanation:

AWS Direct Connect is a low-latency, high-bandwidth, private connection to AWS. This can be used to create a private hybrid cloud connection between on-premises and the AWS Cloud.

CORRECT: "AWS Direct Connect" is the correct answer.

INCORRECT: "AWS Managed VPN" is incorrect. AWS Managed VPN uses the Internet for network connections, so it is not creating a private connection. The connection is secured but uses the Internet.

INCORRECT: "AWS VPN CloudHub" is incorrect. AWS VPN CloudHub uses the Internet for network connections, so it is not creating a private connection. The connection is secured but uses the Internet.

INCORRECT: "AWS VPC Endpoint" is incorrect. An AWS VPC Endpoint is a PrivateLink connection that connects an AWS public service to a VPC using a private connection. This does not connect on-premises environments to AWS.

References:

<https://aws.amazon.com/directconnect/faqs/>

Question 49:

Which services can be used for asynchronous integration between application components? (choose 2)

1. AWS Route 53
2. Amazon EC2 Auto Scaling
3. Amazon SQS
4. AWS CloudFormation
5. Amazon Step Functions

Correct Answer(s): 3, 5

Explanation:

Asynchronous integration is a form of loose coupling between services. This model is suitable for any interaction that does not need an immediate response and where an acknowledgement that a request has been registered will suffice.

Amazon Simple Queue Service (SQS) and Amazon Step Functions both provide asynchronous integration. SQS provides a durable message bus and Step Functions is an orchestrated workflow service.

Amazon EC2 Auto Scaling helps with horizontal scaling of your EC2 instances. This is not an example of asynchronous integration.

AWS CloudFormation automates the deployment of infrastructure based on templates.

AWS Route 53 is a DNS service that resolves domain names to IP addresses.

References:

https://d1.awsstatic.com/whitepapers/AWS_Cloud_Best_Practices.pdf

Question 50:

Which service can be used to manage configuration versions?

1. AWS Config

2. Amazon Inspector
3. AWS Artifact
4. AWS Service Catalog

Correct Answer(s): 1

Explanation:

AWS Config is a fully-managed service that provides you with an AWS resource inventory, configuration history, and configuration change notifications to enable security and regulatory compliance.

CORRECT: "AWS Config" is the correct answer.

INCORRECT: "AWS Service Catalog" is incorrect. AWS Service Catalog is used to create and manage catalogs of IT services that you have approved for use on AWS, including virtual machine images, servers, software, and databases to complete multi-tier application architectures.

INCORRECT: "AWS Artifact" is incorrect. AWS Artifact is a central resource for compliance-related information. This service can be used to get compliance information related to AWS' certifications/attestations.

INCORRECT: "Amazon Inspector" is incorrect. Inspector is an automated security assessment service that helps improve the security and compliance of applications deployed on AWS.

References:

<https://docs.aws.amazon.com/config/latest/developerguide/how-does-config-work.html>

Question 51:

What is the most cost-effective Amazon S3 storage tier for data that is not often accessed but requires high availability?

1. Amazon S3 Standard
2. Amazon S3 Standard-IA
3. Amazon S3 One Zone-IA
4. Amazon Glacier

Correct Answer(s): 2

Explanation:

S3 Standard-IA is for data that is accessed less frequently, but requires rapid access when needed. S3 Standard-IA offers the high durability, high throughput, and low latency of S3 Standard with 99.9% availability

CORRECT: "Amazon S3 Standard-IA" is the correct answer.

INCORRECT: "Amazon S3 Standard" is incorrect as this class will cost more and is designed for data that requires regular access.

INCORRECT: "Amazon S3 One Zone-IA" is incorrect. S3 One Zone-IA is for data that is accessed less frequently, but requires rapid access when needed. Unlike other S3 Storage Classes which store data in a minimum of three Availability Zones (AZs), S3 One Zone-IA stores data in a single AZ and offers lower availability.

INCORRECT: "Amazon Glacier" is incorrect. Glacier is a data archiving solution so not suitable for a storage tier that requires infrequent access.

References:

<https://aws.amazon.com/s3/storage-classes/>

Question 52:

Which type of connection should be used to connect an on-premises data center with the AWS cloud that is high speed, low latency and does not use the Internet?

1. VPC Endpoints
2. AWS Managed VPN
3. Direct Connect
4. Client VPN

Correct Answer(s): 3

Explanation:

AWS Direct Connect is a network service that provides an alternative to using the Internet to connect a customer's on premise sites to AWS. Data is transmitted through a private network connection between AWS and a customer's datacenter or corporate network. Direct Connect is high bandwidth, and low latency.

CORRECT: "Direct Connect" is the correct answer.

INCORRECT: "VPC Endpoints" is incorrect. VPC endpoint enable private connectivity to services hosted in AWS, from within your VPC without using an Internet Gateway, VPN, Network Address Translation (NAT) devices, or firewall proxies.

INCORRECT: "AWS Managed VPN" is incorrect. The AWS Managed VPN (which is a type of IPsec VPN) is fast to setup but uses the public Internet and therefore latency is not as good and is unpredictable.

INCORRECT: "Client VPN" is incorrect. A site-to-site VPN should be used rather than a client VPN to connect two sites together.

References:

<https://aws.amazon.com/vpn/>

Question 53:

Which feature of AWS IAM enables you to identify unnecessary permissions that have been assigned to users?

1. Group Advisor
2. Permissions Advisor
3. Role Advisor
4. Access Advisor

Correct Answer(s): 4

Explanation:

The IAM console provides information about when IAM users and roles last attempted to access AWS services. This information is called service last accessed data. This data can help you identify unnecessary permissions so

that you can refine your IAM policies to better adhere to the principle of “least privilege.”

That means granting the minimum permissions required to perform a specific task. You can find the data on the Access Advisor tab in the IAM console by examining the detail view for any IAM user, group, role, or managed policy.

CORRECT: "Access Advisor" is the correct answer.

INCORRECT: "Role Advisor" is incorrect as this is not a valid feature.

INCORRECT: "Permissions Advisor" is incorrect as this is not a valid feature.

INCORRECT: "Group Advisor" is incorrect as this is not a valid feature.

References:

https://docs.aws.amazon.com/IAM/latest/UserGuide/access_policies_access-advisor.html

Question 54:

Which of the options below are recommendations in the reliability pillar of the well-architected framework? (choose 2)

1. Test recovery procedures
2. Manage change in manual processes
3. Manually recover from failure
4. Scale vertically using big systems
5. Stop guessing about capacity

Correct Answer(s): 1, 5

Explanation:

The reliability pillar includes the ability of a system to recover from infrastructure or service disruptions, dynamically acquire computing resources to meet demand, and mitigate disruptions such as misconfigurations or transient network issues

There are five design principles for reliability in the cloud:

- Test recovery procedures.
- Automatically recover from failure.
- Scale horizontally to increase aggregate system availability.
- Stop guessing capacity.
- Manage change in automation.

CORRECT: "Test recovery procedures" is a correct answer.

CORRECT: "Stop guessing about capacity" is also a correct answer.

INCORRECT: "Manually recover from failure" is incorrect as applications should automatically recover from failure.

INCORRECT: "Manage change in manual processes" is incorrect as you should manage change in automation.

INCORRECT: "Scale vertically using big systems" is incorrect as you should scale applications horizontally.

References:

<https://aws.amazon.com/blogs/apn/the-5-pillars-of-the-aws-well-architected-framework/>

Question 55:

Which type of AWS Storage Gateway can be used to backup data with popular backup software?

1. Backup Gateway
2. Gateway Virtual Tape Library
3. File Gateway
4. Volume Gateway

Correct Answer(s): 2

Explanation:

The AWS Storage Gateway service enables hybrid storage between on-premises environments and the AWS Cloud.

The Gateway Virtual Tape Library can be used with popular backup software such as NetBackup, Backup Exec and Veeam. Uses a virtual media changer and tape drives.

CORRECT: "Gateway Virtual Tape Library" is the correct answer.

INCORRECT: "File Gateway" is incorrect. File gateway provides a virtual on-premises file server, which enables you to store and retrieve files as objects in Amazon S3.

INCORRECT: "Volume Gateway" is incorrect. The volume gateway represents the family of gateways that support block-based volumes, previously referred to as gateway-cached and gateway-stored modes.

INCORRECT: "Backup Gateway" is incorrect. There is no such thing as a Backup Gateway in the AWS products.

References:

<https://docs.aws.amazon.com/storagegateway/latest/userguide/WhatIsStorageGateway.html>

Question 56:

Which Amazon EC2 pricing model should be used to comply with per-core software license requirements?

1. Reserved Instances
2. On-Demand Instances
3. Dedicated Hosts
4. Spot Instances

Correct Answer(s): 3

Explanation:

Amazon EC2 Dedicated Hosts allow you to use your eligible software licenses from vendors such as Microsoft and Oracle on Amazon EC2, so that you get the flexibility and cost effectiveness of using your own licenses, but with the resiliency, simplicity and elasticity of AWS. An Amazon EC2 Dedicated Host is a physical server fully dedicated for your use, so you can help address corporate compliance requirements.

CORRECT: "Dedicated Hosts" is the correct answer.

INCORRECT: "On-Demand Instances" is incorrect. This is a standard pricing model and does not offer the advantages requested.

INCORRECT: "Spot Instances" is incorrect. This is used to obtain discounted pricing for short-term requirements that can be interrupted.

INCORRECT: "Reserved Instances" is incorrect. This is used to lower cost by reserving usage of an instance for a term of 1 or 3 years.

References:

<https://aws.amazon.com/ec2/dedicated-hosts/>

Question 57:

What is the difference between an EBS volume and an Instance store?

1. EBS volumes are object storage devices whereas Instance store volume are block based
2. EBS volumes are file-level storage devices whereas Instance store volumes are object-based
3. Instance store volumes can be used with all EC2 instance types whereas EBS cannot
4. Instance store volumes are ephemeral whereas EBS volumes are persistent storage

Correct Answer(s): 4

Explanation:

EBS-backed means the root volume is an EBS volume and storage is persistent. Instance store-backed means the root volume is an instance store volume and storage is not persistent. Both EBS and Instance store volumes are block-based storage devices.

EBS volumes can be used with all EC2 instance types whereas Instance store volumes are more limited in compatibility

CORRECT: "Instance store volumes are ephemeral whereas EBS volumes are persistent storage" is the correct answer.

INCORRECT: "EBS volumes are object storage devices whereas Instance store volume are block based" is incorrect as both are block-based storage devices.

INCORRECT: "Instance store volumes can be used with all EC2 instance types whereas EBS cannot" is incorrect as this is not true.

INCORRECT: "EBS volumes are file-level storage devices whereas Instance store volumes are object-based" is incorrect as both are block-based storage devices.

References:

<https://aws.amazon.com/premiumsupport/knowledge-center/instance-store-vs-ebs/>

Question 58:

Which service can be used to improve performance for users around the world?

1. AWS LightSail
2. Amazon CloudFront
3. Amazon Connect
4. Amazon ElastiCache

Correct Answer(s): 2

Explanation:

Amazon CloudFront is a content delivery network (CDN) that caches content at Edge Locations around the world. This gets the content closer to users which improves performance.

CORRECT: "Amazon CloudFront" is the correct answer.

INCORRECT: "AWS LightSail" is incorrect. AWS LightSail is a compute service that offers a lower cost and easier to use alternative to Amazon EC2.

INCORRECT: "Amazon Connect" is incorrect. Amazon Connect Amazon Connect is a self-service, cloud-based contact center service that makes it easy for any business to deliver better customer service at lower cost.

INCORRECT: "Amazon ElasticCache" is incorrect. Amazon ElasticCache is a caching service for databases. Though it does improve read performance for database queries, it is not a global service that is designed to improve performance for users around the world.

References:

<https://aws.amazon.com/cloudfront/faqs/>

Question 59:

Which of the following are architectural best practices for the AWS Cloud? (choose 2)

1. Close coupling
2. Design for fault tolerance
3. Create monolithic architectures
4. Deploy into multiple Availability Zones
5. Deploy into a single availability zone

Correct Answer(s): 2, 4

Explanation:

It is an architectural best practice to deploy your resources into multiple availability zones and design for fault tolerance. These both ensure that if resources or infrastructure fails, your application continues to run.

CORRECT: "Deploy into multiple Availability Zones" is a correct answer.

CORRECT: "Design for fault tolerance" is also a correct answer.

INCORRECT: "Deploy into a single availability zone" is incorrect. You should not deploy all of your resources into a single availability zone as any infrastructure failure will take down access to your resources.

INCORRECT: "Close coupling" is incorrect. Close coupling is not an architectural best practice – loose coupling is. With loose coupling you reduce interdependencies between components of an application and often put a middle layer such as a message bus between components.

INCORRECT: "Create monolithic architectures" is incorrect. You should not create monolithic architectures. With monolithic architectures you have a single instance running multiple components of the application, if any of these components fails, your application fails. It is better to design microservices architectures where components are spread across more instances.

References:

<https://aws.amazon.com/architecture/well-architected/>

Question 60:

The ability to horizontally scale Amazon EC2 instances based on demand is an example of which concept?

1. Elasticity
2. Agility
3. Economy of scale
4. High availability

Correct Answer(s): 1

Explanation:

Elasticity is the ability to dynamically adjust the capacity of a service or resource based on demand. Scaling can be vertical (e.g. increase instance size) or horizontal (e.g. add more EC2 instances).

CORRECT: "Elasticity" is the correct answer.

INCORRECT: "Economy of scale" is incorrect. This refers to pricing benefits based on AWS purchasing large amounts of resources.

INCORRECT: "High availability" is incorrect. This is an example of resilience.

INCORRECT: "Agility" is incorrect. This is an example of flexibility and speed of implementation.

References:

https://d1.awsstatic.com/whitepapers/architecture/AWS_Well-Architected_Framework.pdf

Question 61:

Which Amazon EC2 pricing option provides significant discounts for fixed term contracts?

1. Reserved Instances
2. Dedicated Instances
3. Spot Instances
4. Dedicated Hosts

Correct Answer(s): 1

Explanation:

Reserved instances provide significant discounts, up to 75% compared to On-Demand pricing, by paying for capacity ahead of time.

CORRECT: "Reserved Instances" is the correct answer.

INCORRECT: "Spot Instances" is incorrect. Spot Instances allow you to purchase spare computing capacity with no upfront commitment at discounted hourly rates. This is not used for long-term requirements.

INCORRECT: "Dedicated Instances" is incorrect. Dedicated Instances are Amazon EC2 instances that run in a VPC on hardware that's dedicated to a single customer.

INCORRECT: "Dedicated Hosts" is incorrect. Dedicated hosts are EC2 servers dedicated to a single customer.

References:

<https://aws.amazon.com/ec2/pricing/reserved-instances/>

Question 62:

Which team is available to support AWS customers on an Enterprise support plan with account issues?

1. AWS Concierge

2. AWS Billing and Accounts
3. AWS Technical Account Manager
4. AWS Technical Support

Correct Answer(s): 1

Explanation:

Included as part of the Enterprise Support plan, the Support Concierge Team are AWS billing and account experts that specialize in working with enterprise accounts.

CORRECT: "AWS Concierge" is the correct answer.

INCORRECT: "AWS Technical Support" is incorrect as this is not the name of the team.

INCORRECT: "AWS Billing and Accounts" is incorrect as the Support Concierge Team fulfil this role.

INCORRECT: "AWS Technical Account Manager" is incorrect. The Technical Account Manager provides expert monitoring and optimization for your environment and coordinates access to other programs and experts.

References:

<https://aws.amazon.com/premiumsupport/features/>

Question 63:

A user has an AWS account with a Business-level AWS Support plan and needs assistance with handling a production service disruption.

Which action should the user take?

1. Open a production system down support case
2. Contact the dedicated AWS Concierge Support team
3. Open a business-critical system down support case
4. Contact the dedicated Technical Account Manager

Correct Answer(s): 1

Explanation:

The Business support plan provides a service level agreement (SLA) of < 1 hour for production system down support cases.

CORRECT: "Open a production system down support case" is the correct answer.

INCORRECT: "Contact the dedicated Technical Account Manager" is incorrect. The dedicated TAM only comes with the Enterprise support plan.

INCORRECT: "Contact the dedicated AWS Concierge Support team" is incorrect. The concierge support team only comes with the Enterprise support plan.

INCORRECT: "Open a business-critical system down support case" is incorrect. The business-critical system down support only comes with the Enterprise support plan.

References:

<https://aws.amazon.com/premiumsupport/plans/>

Question 64:

Which of the following can be assigned to an IAM user? (choose 2)

1. A key pair
2. A password for logging into Linux
3. An access key ID and secret access key
4. A password for access to the management console
5. An SSL/TLS certificate

Correct Answer(s): 3, 4

Explanation:

An IAM user is an entity that represents a person or service. Users can be assigned an access key ID and secret access key for programmatic access to the AWS API, CLI, SDK, and other development tools and a password for access to the management console.

CORRECT: "An access key ID and secret access key" is the correct answer.

CORRECT: "A password for access to the management console" is the correct answer.

INCORRECT: "An SSL/TLS certificate" is incorrect. You cannot assign an SSL/TLS certificate to a user.

INCORRECT: "A key pair" is incorrect. Key pairs are used with Amazon EC2 as a method of using public key encryption to securely access EC2 instances.

INCORRECT: "A password for logging into Linux" is incorrect. You cannot assign an IAM user with a password for logging into a Linux instance.

References:

https://docs.aws.amazon.com/IAM/latest/UserGuide/id_users.html

Question 65:

How are AWS Lambda functions triggered?

1. Schedules
2. Metrics
3. Counters
4. Events

Correct Answer(s): 4

Explanation:

AWS Lambda lets you run code as functions without provisioning or managing server. Lambda-based applications (also referred to as serverless applications) are composed of functions triggered by events.

For instance, you can trigger a Lambda function to run when an object is uploaded to an Amazon S3 bucket or a message is added to an Amazon SQS queue.

CORRECT: "Events" is the correct answer.

INCORRECT: "Schedules" is incorrect as functions are triggered by events.

INCORRECT: "Metrics" is incorrect as functions are triggered by events.

INCORRECT: "Counters" is incorrect as functions are triggered by events.

References:

<https://docs.aws.amazon.com/lambda/latest/dg/lambda-invocation.html>

AWS CERTIFIED CLOUD PRACTITIONER

TEST 5

AWS CERTIFIED CLOUD PRACTITIONER:

TEST 5

Question 1: Correct

Which AWS IAM best practice recommends applying the minimum permissions necessary to perform a task when creating IAM policies?

1. Grant least privilege
2. Create individual IAM users
3. Enable MFA for privileged users
4. Use roles to delegate permissions

Correct Answer(s): 1

Explanation:

When you create IAM policies, follow the standard security advice of granting least privilege—that is, granting only the permissions required to perform a task. Determine what users need to do and then craft policies for them that let the users perform only those tasks.

The other answer are all valid best practices but are not related to applying minimum permissions to IAM policies.

CORRECT: "Grant least privilege" is the correct answer.

INCORRECT: "Create individual IAM users" is incorrect as explained above.

INCORRECT: "Use roles to delegate permissions" is incorrect as explained above.

INCORRECT: "Enable MFA for privileged users" is incorrect as explained above.

References:

<https://docs.aws.amazon.com/IAM/latest/UserGuide/best-practices.html#grant-least-privilege>

Question 2:

Which service allows an organization to bring their own licensing on host hardware that is physically isolated from other AWS accounts?

1. EC2 Reserved Instances
2. EC2 Dedicated Instances
3. EC2 Spot Instances
4. EC2 Dedicated Hosts

Correct Answer(s): 4

Explanation:

An Amazon EC2 Dedicated Host is a physical server with EC2 instance capacity fully dedicated to your use. Dedicated Hosts allow you to use your existing per-socket, per-core, or per-VM software licenses, including Windows Server, Microsoft SQL Server, SUSE, Linux Enterprise Server, and so on.

CORRECT: "EC2 Dedicated Hosts" is the correct answer.

INCORRECT: "EC2 Dedicated Instances" is incorrect. Dedicated Instances are Amazon EC2 instances that run in a VPC on hardware that's dedicated to a single customer. Bring your own licensing (BYOL) is not supported for dedicated instances.

INCORRECT: "EC2 Spot Instances" is incorrect. Spot instances allow you to bid in the marketplace for EC2 instances to reduce cost, they do not allow BYOL.

INCORRECT: "EC2 Reserved Instances" is incorrect. Reserved instances allow you to reduce on-demand price by up to 70% by committing to a 1- or 3-year term.

References:

<https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/dedicated-hosts-overview.html>

Question 3:

What is the relationship between subnets and availability zones?

1. Subnets contain one or more availability zones
2. You can create one subnet per availability zone
3. You can create one or more subnets within each availability zone
4. Subnets span across multiple availability zones

Correct Answer(s): 3

Explanation:

You can create one or more subnets within each availability zone but subnets cannot span across availability zones.

CORRECT: "You can create one or more subnets within each availability zone" is the correct answer.

INCORRECT: "Subnets span across multiple availability zones" is incorrect as they are contained within a single AZ.

INCORRECT: "You can create one subnet per availability zone" is incorrect as you can create many subnets per AZ.

INCORRECT: "Subnets contain one or more availability zones" is incorrect as they are created within a single AZ.

References:

<https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/Concepts.RegionsAndAvailabilityZones.html>

Question 4:

Which AWS services form the app-facing services of the AWS serverless infrastructure? (choose 2)

1. Amazon EFS
2. AWS Step Functions
3. AWS Lambda
4. Amazon DynamoDB
5. Amazon API Gateway

Correct Answer(s): 3, 5

Explanation:

AWS Lambda and Amazon API Gateway are both app-facing components of the AWS Serverless infrastructure

AWS Step Functions is an orchestration service

CORRECT: "AWS Lambda" is a correct answer.

CORRECT: "Amazon API Gateway" is also a correct answer.

INCORRECT: "AWS Step Functions" is incorrect. This is a serverless orchestration service.

INCORRECT: "Amazon DynamoDB" is incorrect. Amazon DynamoDB is a serverless database service. Databases are backend, not app-facing.

INCORRECT: "Amazon EFS" is incorrect. EFS is a filesystem. Typically, EFS is mounted by Amazon EC2 instances.

References:

<https://aws.amazon.com/serverless/>

Question 5:

Which AWS support plan provides email only support by Cloud Support Associates?

1. Basic
2. Business
3. Enterprise
4. Developer

Correct Answer(s): 4

Explanation:

Developer provides email support by the Cloud Support Associates team whereas Business and Enterprise provide email, 24×7 phone and chat access to Cloud Support Engineers. Basic does not provide email support at all.

CORRECT: "Developer" is the correct answer.

INCORRECT: "Basic" is incorrect as explained above.

INCORRECT: "Business" is incorrect as explained above.

INCORRECT: "Enterprise" is incorrect as explained above.

References:

<https://aws.amazon.com/premiumsupport/plans/>

Question 6:

Which service is used introduce fault tolerance into an application architecture?

1. Amazon DynamoDB
2. Amazon CloudFront
3. Amazon ElastiCache
4. Amazon Elastic Load Balancing

Correct Answer(s): 4

Explanation:

Amazon Elastic Load Balancing is used to spread load and introduce fault tolerance by distributing connections across multiple identically configured back-end EC2 instances.

CORRECT: "Amazon Elastic Load Balancing" is the correct answer.

INCORRECT: "Amazon CloudFront" is incorrect. Amazon CloudFront is a content delivery network that is used for caching content and serving it to web-based users quickly.

INCORRECT: "Amazon ElastiCache" is incorrect. Amazon ElastiCache is an in-memory database cache and is used to introduce improved performance rather than fault tolerance.

INCORRECT: "Amazon DynamoDB" is incorrect. Amazon DynamoDB is fault tolerant; however, it is not something you add to an architecture to introduce fault tolerance to the application stack.

References:

<https://aws.amazon.com/elasticloadbalancing/>

Question 7:

What are the benefits of using IAM roles for applications that run on EC2 instances? (choose 2)

1. Easier to configure than using storing access keys within the EC2 instance
2. More secure than storing access keys within applications
3. Role credentials are permanent
4. Can apply multiple roles to a single instance
5. It is easier to manage IAM roles

Correct Answer(s): 2, 5

Explanation:

Using IAM roles instead of storing credentials within EC2 instances is more secure. It is also easier to manage roles.

CORRECT: "More secure than storing access keys within applications" is the correct answer.

CORRECT: "It is easier to manage IAM roles" is the correct answer.

INCORRECT: "Easier to configure than using storing access keys within the EC2 instance" is incorrect. It is not easier to configure as there are extra steps that need to be completed.

INCORRECT: "Can apply multiple roles to a single instance" is incorrect. You cannot apply multiple roles to a single instance.

INCORRECT: "Role credentials are permanent" is incorrect. Role credentials are temporary, not permanent, and are rotated automatically.

References:

https://docs.aws.amazon.com/IAM/latest/UserGuide/id_roles_use_switch-role-ec2.html

Question 8:

What charges are applicable to Amazon S3 Standard storage class? (choose 2)

1. Data ingress
2. Data egress
3. Retrieval fee
4. Minimum capacity charge per object
5. Per GB/month storage fee

Correct Answer(s): 2, 5

Explanation:

With the standard storage class you pay a per GB/month storage fee, and data transfer out of S3. Standard-IA and One Zone-IA have a minimum capacity charge per object. Standard-IA, One Zone-IA, and Glacier also have a retrieval fee. You don't pay for data into S3 under any storage class.

CORRECT: "Per GB/month storage fee" is the correct answer.

CORRECT: "Data egress" is the correct answer.

INCORRECT: "Retrieval fee" is incorrect as explained above.

INCORRECT: "Minimum capacity charge per object" is incorrect as explained above.

INCORRECT: "Data ingress" is incorrect as explained above.

References:

<https://aws.amazon.com/s3/pricing/>

Question 9:

Which of the following constitute the five pillars for the AWS Well-Architected Framework? (choose 2)

1. Operational excellence, elasticity and scalability
2. Data consistency, and cost optimization
3. Performance efficiency, and cost optimization

4. Operational excellence, security, and reliability
5. Cost prioritization, and cost optimization

Correct Answer(s): 3, 4

Explanation:

The five pillars of the AWS Well-Architected Framework are operational excellence, security, reliability, performance efficiency, and cost optimization

CORRECT: "Operational excellence, security, and reliability" is the correct answer.

CORRECT: "Performance efficiency, and cost optimization" is the correct answer.

INCORRECT: "Operational excellence, elasticity and scalability" is incorrect as elasticity and scalability are not included.

INCORRECT: "Cost prioritization, and cost optimization" is incorrect as cost prioritization is not included.

INCORRECT: "Data consistency, and cost optimization" is incorrect as data consistency is not included.

References:

<https://aws.amazon.com/blogs/apn/the-5-pillars-of-the-aws-well-architected-framework/>

Question 10:

Which service provides alerts and remediation guidance when AWS is experiencing events that may impact you?

1. AWS Shield
2. AWS Inspector
3. AWS Trusted Advisor
4. AWS Personal Health Dashboard

Correct Answer(s): 4

Explanation:

AWS Personal Health Dashboard provides alerts and remediation guidance when AWS is experiencing events that may impact you.

CORRECT: "AWS Personal Health Dashboard" is the correct answer.

INCORRECT: "AWS Trusted Advisor" is incorrect. Trusted Advisor is an online resource that helps to reduce cost, increase performance and improve security by optimizing your AWS environment.

INCORRECT: "AWS Inspector" is incorrect. Inspector is an automated security assessment service that helps improve the security and compliance of applications deployed on AWS.

INCORRECT: "AWS Shield" is incorrect. AWS Shield is a managed Distributed Denial of Service (DDoS) protection service.

References:

<https://docs.aws.amazon.com/health/latest/ug/getting-started-phd.html>

Question 11:

How can you configure Amazon Route 53 to monitor the health and performance of your application?

1. Using DNS lookups
2. Using CloudWatch
3. Using the Route 53 API
4. Using Route 53 health checks

Correct Answer(s): 4**Explanation:**

Amazon Route 53 health checks monitor the health and performance of your web applications, web servers, and other resources.

None of the other options provide a solution that can check the health and performance of an application.

CORRECT: "Using Route 53 health checks" is the correct answer.

INCORRECT: "Using DNS lookups" is incorrect as explained above.

INCORRECT: "Using the Route 53 API" is incorrect as explained above.

INCORRECT: "Using CloudWatch" is incorrect as explained above.

References:

<https://docs.aws.amazon.com/Route53/latest/DeveloperGuide/dns-failover.html>

Question 12:

With which service can a developer upload code using a ZIP or WAR file and have the service handle the end-to-end deployment of the resources?

1. AWS CodeDeploy
2. AWS Elastic Beanstalk
3. AWS CodeCommit
4. Amazon ECS

Correct Answer(s): 2

Explanation:

AWS Elastic Beanstalk can be used to quickly deploy and manage applications in the AWS Cloud. Developers upload applications and Elastic Beanstalk handles the deployment details of capacity provisioning, load balancing, auto-scaling, and application health monitoring.

You can upload code directly using a ZIP or WAR file. You can also use a Git archive.

CORRECT: "AWS Elastic Beanstalk" is the correct answer.

INCORRECT: "AWS CodeDeploy" is incorrect. AWS CodeDeploy is a fully managed deployment service that automates software deployments to a variety of compute services such as Amazon EC2, AWS Lambda, and on-premises servers.

INCORRECT: "Amazon ECS" is incorrect. Amazon Elastic Container Service is a managed service for running Docker containers.

INCORRECT: "AWS CodeCommit" is incorrect. AWS CodeCommit is a fully-managed source control service that hosts secure Git-based repositories. It does not actually automate the build of the code or infrastructure on which it runs.

References:

<https://docs.aws.amazon.com/elasticbeanstalk/latest/dg/applications-sourcebundle.html>

Question 13:

Which service runs your application code only when needed without needing to run servers?

1. Amazon EC2
2. AWS LightSail
3. AWS Lambda
4. Amazon ECS

Correct Answer(s): 3

Explanation:

AWS Lambda is a serverless service that runs code as “functions”. That means that your code is run when needed but there are no servers running (at least not servers that you see or manage). This reduces cost and operational overhead.

CORRECT: "AWS Lambda" is the correct answer.

INCORRECT: "Amazon EC2" is incorrect. Amazon EC2 is used for running server instances so this is an incorrect answer.

INCORRECT: "Amazon ECS" is incorrect. Amazon ECS is used for running Docker containers which do need to run waiting for requests.

INCORRECT: "AWS LightSail" is incorrect. AWS LightSail is a service that is used for running virtual instances and databases using a simplified user interface for users who are less experienced with AWS (also at a much lower cost than EC2).

References:

<https://aws.amazon.com/lambda/>

Question 14:

Which service is used for caching data?

1. Amazon Elastic File System (EFS)
2. Amazon DynamoDB DAX
3. AWS Key Management Service (KMS)
4. Amazon Simple Queue Service (SQS)

Correct Answer(s): 2

Explanation:

Amazon DynamoDB Accelerator (DAX) is a fully managed, highly available, in-memory cache for DynamoDB that delivers up to a 10x performance improvement – from milliseconds to microseconds – even at millions of requests per second.

CORRECT: "Amazon DynamoDB DAX" is the correct answer.

INCORRECT: "Amazon Simple Queue Service (SQS)" is incorrect. Amazon Simple Queue Service (SQS) is a fully managed message queuing service that enables you to decouple and scale microservices, distributed systems, and serverless applications.

INCORRECT: "Amazon Key Management Service (KMS)" is incorrect. AWS Key Management Service (KMS) makes it easy for you to create and manage keys and control the use of encryption across a wide range of AWS services and in your applications.

INCORRECT: "Amazon Elastic File System (EFS)" is incorrect. Amazon Elastic File System (Amazon EFS) provides a simple, scalable, elastic file system for Linux-based workloads for use with AWS Cloud services and on-premises resources.

References:

<https://aws.amazon.com/dynamodb/dax/>

Question 15:

A user deploys an Amazon Aurora database instance in multiple Availability Zones.

This strategy involves which pillar of the AWS Well-Architected Framework?

1. Reliability
2. Cost optimization
3. Performance efficiency
4. Security

Correct Answer(s): 1

Explanation:

The reliability pillar includes the ability of a system to recover from infrastructure or service disruptions, dynamically acquire computing resources to meet demand, and mitigate disruptions such as misconfigurations or transient network issues.

There are five design principles for reliability in the cloud:

- Test recovery procedures
- Automatically recover from failure
- Scale horizontally to increase aggregate system availability
- Stop guessing capacity
- Manage change in automation

The example given in the question is related to “Automatically recover from failure”.

CORRECT: "Reliability" is the correct answer.

INCORRECT: "Performance efficiency" is incorrect as this is an example of reliability.

INCORRECT: "Cost optimization" is incorrect as this is an example of reliability.

INCORRECT: "Security" is incorrect as this is an example of reliability.

References:

<https://aws.amazon.com/blogs/apn/the-5-pillars-of-the-aws-well-architected-framework/>

Question 16:

Which of the following would be good reasons to move from on-premises to the AWS Cloud? (choose 2)

1. Gain access to free technical support services
2. Outsource all security responsibility
3. Improve agility and elasticity
4. Reduce costs through easier right-sizing of workloads
5. Gain end-to-end operational management of the entire infrastructure stack

Correct Answer(s): 3, 4

Explanation:

There are many benefits to moving to the AWS Cloud and these include reducing costs through right-sizing workloads. This is easier with elastic computing and the ability to easily adjust workloads, monitor utilization and programmatically make changes. You can improve agility and elasticity through services such as Auto Scaling, Elastic Load Balancing and highly scalable services such as S3 and Lambda.

CORRECT: "Reduce costs through easier right-sizing of workloads" is a correct answer.

CORRECT: "Improve agility and elasticity" is also a correct answer.

INCORRECT: "Gain access to free technical support services" is incorrect. You do not get free technical support services with AWS.

INCORRECT: "Gain end-to-end operational management of the entire infrastructure stack" is incorrect. You do not gain end-to-end operational management of your entire infrastructure stack. AWS manage the infrastructure and, for some services, the application too.

INCORRECT: "Outsource all security responsibility" is incorrect. You do not outsource all security responsibility with AWS – you are still responsible for ensuring the security of your applications, users, and data.

References:

<https://docs.aws.amazon.com/whitepapers/latest/aws-overview/six-advantages-of-cloud-computing.html>

Question 17:

What information must be entered into the AWS TCO Calculator?

1. The number of applications in your company
2. The number of end users in your company
3. The number of storage systems in your company
4. The number of servers in your company

Correct Answer(s): 4

Explanation:

The TCO calculator asks for the number of servers (Physical or VMs) you are running on-premises. You also need to supply the resource information (CPU, RAM) and specify whether the server is a DB or non-DB.

Use this new calculator to compare the cost of your applications in an on-premises or traditional hosting environment to AWS. Describe your on-premises or hosting environment configuration to produce a detailed cost comparison with AWS.

CORRECT: "The number of servers in your company" is the correct answer.

INCORRECT: "The number of end users in your company" is incorrect. You do not need to supply the number of end users.

INCORRECT: "The number of applications in your company" is incorrect. You do not need to supply the number of applications.

INCORRECT: "The number of storage systems in your company" is incorrect. You don't need to specify the number of storage systems, you just need to specify the raw capacity.

References:

<https://aws.amazon.com/tco-calculator/>

<https://awstcocalculator.com/>

Question 18:

Which AWS program can help an organization to design, build, and manage their workloads on AWS?

1. APN Technology Consultants
2. APN Consulting Partners
3. AWS Technical Account Manager
4. AWS Business Development Manager

Correct Answer(s): 2**Explanation:**

APN Consulting Partners are professional services firms that help customers of all sizes design, architect, build, migrate, and manage their workloads and applications on AWS. Consulting Partners include System Integrators (SIs), Strategic Consultancies, Agencies, Managed Service Providers (MSPs), and Value-Added Resellers (VARs).

None of the other options are AWS Programs that can assist a customer with the design, build and management of their workloads.

CORRECT: "APN Consulting Partners" is the correct answer.

INCORRECT: "APN Technology Consultants" is incorrect as explained above.

INCORRECT: "AWS Business Development Manager" is incorrect as explained above.

INCORRECT: "AWS Technical Account Manager" is incorrect as explained above.

References:

<https://aws.amazon.com/partners/consulting/>

Question 19:

Which services allow you to store files on AWS? (choose 2)

1. Amazon EBS
2. Amazon SQS
3. Amazon EFS
4. AWS Lambda
5. Amazon LightSail

Correct Answer(s): 1, 3

Explanation:

You can store files on the Elastic Block Store (EBS), and Elastic File System (EFS). EBS volumes are mounted as block devices to EC2 instances and EFS volumes are mounted to the instance using the NFS protocol.

CORRECT: "Amazon EBS" is a correct answer.

CORRECT: "Amazon EFS" is also a correct answer.

INCORRECT: "AWS Lambda" is incorrect. AWS Lambda is a compute service for running code as functions.

INCORRECT: "Amazon LightSail" is incorrect. Amazon LightSail is a compute service for running instances.

INCORRECT: "Amazon SQS" is incorrect. Amazon Simple Queue Service (SQS) is a message bus for temporarily storing data that is being passed between application components.

References:

<https://aws.amazon.com/ebs/>

<https://aws.amazon.com/efs/>

Question 20:

Which AWS components aid in the construction of fault-tolerant applications? (choose 2)

1. Tags

2. AMIs
3. Block device mappings
4. Elastic IP addresses
5. ARNs

Correct Answer(s): 2, 4

Explanation:

Elastic IP addresses can be easily remapped between EC2 instances in the event of a failure. Amazon Machine Images (AMIs) can be used to quickly launch replacement instances when there is a failure

Amazon Resource Names (ARNs), tags and block device mappings don't really help with fault tolerance

CORRECT: "Elastic IP addresses" is a correct answer.

CORRECT: "AMIs" is also a correct answer.

INCORRECT: "ARNs" is incorrect as explained above.

INCORRECT: "Tags" is incorrect as explained above.

INCORRECT: "Block device mappings" is incorrect as explained above.

References:

<https://aws.amazon.com/whitepapers/designing-fault-tolerant-applications/>

Question 21:

Which AWS security service provides a firewall at the subnet level within a VPC?

1. IAM Policy
2. Bucket Policy
3. Security Group
4. Network Access Control List

Correct Answer(s): 4

Explanation:

A Network ACL is a firewall that is associated with a subnet within your VPC. It is used to filter the network traffic that enters and exits the subnet.

CORRECT: "Network Access Control List" is the correct answer.

INCORRECT: "Security Group" is incorrect. A Security Group is a firewall that is associated with an EC2 instances (not the subnet). Security Groups control the traffic the inbound and outbound network traffic from/to the instance.

INCORRECT: "IAM Policy" is incorrect. An IAM Policy is used to assign permissions to users and roles.

INCORRECT: "Bucket Policy" is incorrect. A Bucket Policy is used with Amazon S3 buckets to control access.

References:

<https://docs.aws.amazon.com/vpc/latest/userguide/vpc-network-acls.html>

Question 22:

How can a company connect from their on-premises network to VPCs in multiple regions using private connections?

1. AWS Managed VPN
2. Inter-Region VPC Peering
3. Amazon CloudFront
4. AWS Direct Connect Gateway

Correct Answer(s): 4**Explanation:**

You can use an AWS Direct Connect gateway to connect your AWS Direct Connect connection over a private virtual interface to one or more VPCs in your account that are located in the same or different Regions

CORRECT: "AWS Direct Connect Gateway" is the correct answer.

INCORRECT: "AWS Managed VPN" is incorrect. AWS Managed VPN uses the public Internet and is therefore not a private connection.

INCORRECT: "Amazon CloudFront" is incorrect. Amazon CloudFront is a content delivery network used for caching data.

INCORRECT: "Inter-Region VPC Peering" is incorrect. Inter-Region VPC peering does not help you to connect from an on-premise network.

References:

<https://docs.aws.amazon.com/directconnect/latest/UserGuide/direct-connect-gateways.html>

Question 23:

What are the primary benefits of using AWS Elastic Load Balancing? (choose 2)

1. Elasticity
2. Automation
3. Regional resilience
4. Caching
5. High availability

Correct Answer(s): 1, 5

Explanation:

High availability – ELB automatically distributes traffic across multiple EC2 instances in different AZs within a region.

Elasticity – ELB is capable of handling rapid changes in network traffic patterns.

CORRECT: "High availability" is a correct answer.

CORRECT: "Elasticity" is also a correct answer.

INCORRECT: "Automation" is incorrect. Automation is not a primary benefit of ELB.

INCORRECT: "Caching" is incorrect. Caching is not a benefit of ELB

INCORRECT: "Regional resilience" is incorrect. An ELB can distribute incoming traffic across your Amazon EC2 instances in a single Availability Zone or multiple Availability Zones, but not across regions (for regional resilience).

References:

<https://aws.amazon.com/elasticloadbalancing/>

Question 24:

Which of the following are advantages of using the AWS cloud computing over legacy IT? (choose 2)

1. You can bring new applications to market faster
2. You don't need to worry about over provisioning as you can elastically scale
3. You are able to pass responsibility for the availability of your application to AWS
4. You don't need to patch your operating systems
5. You can bring services closer to your end users

Correct Answer(s): 1, 2

Explanation:

With cloud computing you no longer need to guess about capacity as you can elastically scale. This means you don't end up overprovisioning but instead react to the load on your servers. You can also be faster and more agile with development and release of applications.

CORRECT: "You don't need to worry about over provisioning as you can elastically scale" is a correct answer.

CORRECT: "You can bring new applications to market faster" is also a correct answer.

INCORRECT: "You are able to pass responsibility for the availability of your application to AWS" is incorrect. You do not pass responsibility for your application to AWS. AWS runs the infrastructure but you still manage the application

INCORRECT: "You don't need to patch your operating systems" is incorrect. You still need to patch your own operating systems.

INCORRECT: "You can bring services closer to your end users" is incorrect. The cloud is centralized so you won't necessarily bring services closer to your end users.

References:

<https://docs.aws.amazon.com/whitepapers/latest/aws-overview/six-advantages-of-cloud-computing.html>

Question 25:

An Elastic IP Address can be remapped between EC2 instances across which boundaries?

1. Availability Zones
2. Regions
3. DB Subnets
4. Edge Locations

Correct Answer(s): 1

Explanation:

Elastic IP addresses are for use in a specific region only and can therefore only be remapped between instances within that region. You can use Elastic IP addresses to mask the failure of an instance in one Availability Zone by rapidly remapping the address to an instance in another Availability Zone.

CORRECT: "Availability Zones" is the correct answer.

INCORRECT: "Regions" is incorrect as you cannot remap across regions.

INCORRECT: "Edge Locations" is incorrect. Edge Locations are used by CloudFront and are not places where you can run EC2 instances.

INCORRECT: "DB Subnets" is incorrect. DB subnets (groups) are used by the RDS relational database service and are not used for running EC2 instances.

References:

<https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/elastic-ip-addresses-eip.html>

Question 26:

What is an Edge location?

1. A VPC peering connection endpoint
2. A content delivery network (CDN) endpoint for CloudFront
3. A public endpoint for Amazon S3
4. A virtual private gateway for VPN

Correct Answer(s): 2

Explanation:

Edge locations are Content Delivery Network (CDN) endpoints for CloudFront. There are many more edge locations than regions.

CORRECT: "A content delivery network (CDN) endpoint for CloudFront" is the correct answer.

INCORRECT: "A public endpoint for Amazon S3" is incorrect as it is not related to S3.

INCORRECT: "A virtual private gateway for VPN" is incorrect as it is not related to VPN.

INCORRECT: "A VPC peering connection endpoint" is incorrect as it is not related to VPC.

Question 27:

Which of the following must be used together to gain programmatic access to an AWS account? (Select TWO.)

1. A secret access key
2. A user ID
3. An access key ID
4. A primary key
5. A secondary key

Correct Answer(s): 1, 3

Explanation:

Access keys are long-term credentials for an IAM user or the AWS account root user. You can use access keys to sign programmatic requests to the AWS CLI or AWS API (directly or using the AWS SDK).

Access keys consist of two parts: an access key ID (for example, AKIAIOSFODNN7EXAMPLE) and a secret access key (for example, wJalrXUtnFEMI/K7MDENG/bPxrFiCYEXAMPLEKEY).

Like a user name and password, you must use both the access key ID and secret access key together to authenticate your requests. Manage your access keys as securely as you do your user name and password.

CORRECT: "An access key ID" is the correct answer.

CORRECT: "A secret access key" is the correct answer.

INCORRECT: "A primary key" is incorrect. Primary keys are not associated with authentication.

INCORRECT: "A user ID" is incorrect. A user ID is used to logon using the AWS Management Console, not programmatically.

INCORRECT: "A secondary key" is incorrect. Secondary keys are not associated with authentication.

References:

https://docs.aws.amazon.com/IAM/latest/UserGuide/id_credentials_access-keys.html

Question 28:

Which type of EBS volumes can be encrypted?

1. Both non-root and root volumes
2. Only root volumes can have encryption applied at launch time
3. Only non-root volumes created from snapshots
4. Non-root volumes only

Correct Answer(s): 1

Explanation:

Amazon EBS encryption offers a straight-forward encryption solution for your EBS resources that doesn't require you to build, maintain, and secure your own key management infrastructure. It uses AWS Key Management Service (AWS KMS) customer master keys (CMK) when creating encrypted volumes and snapshots.

Encryption operations occur on the servers that host EC2 instances, ensuring the security of both data-at-rest and data-in-transit between an instance and its attached EBS storage.

All volumes can now be encrypted at launch time and it's possible to set this as the default setting.

CORRECT: "Both non-root and root volumes" is the correct answer.

INCORRECT: "Non-root volumes only" is incorrect as this is not true.

INCORRECT: "Only non-root volumes created from snapshots" is incorrect as you can encrypt all EBS volumes whether created from snapshots or not.

INCORRECT: "Only root volumes can have encryption applied at launch time" is incorrect as all volumes can have encryption applied at launch time.

References:

<https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/EBSEncryption.html>

Question 29:

An application that is deployed across multiple Availability Zones could be described as:

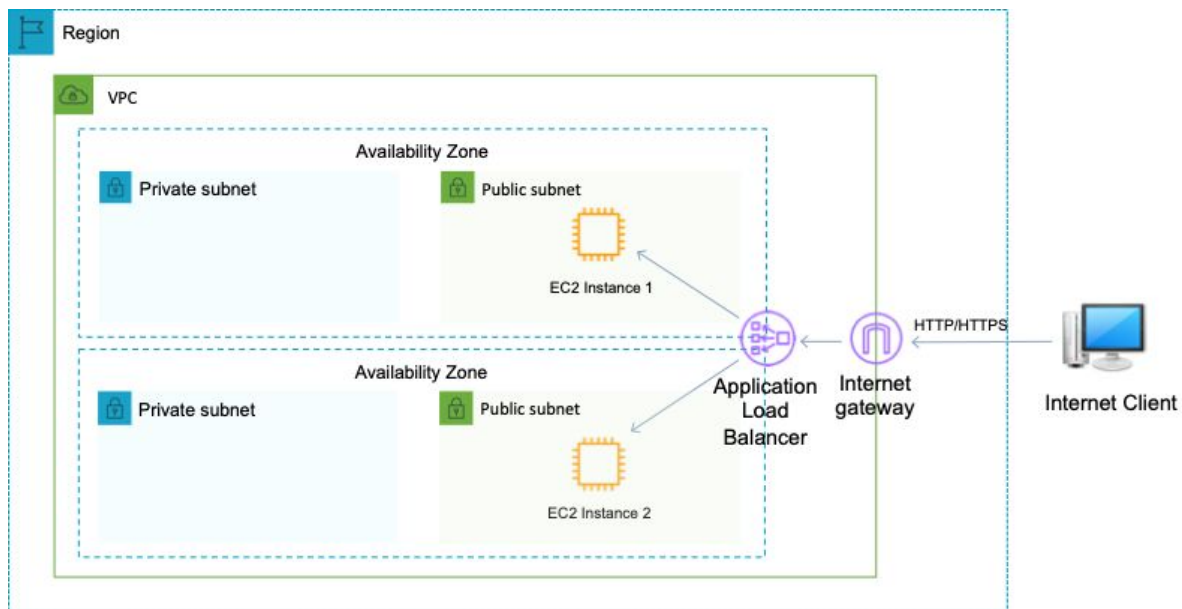
1. Being highly available
2. Having elasticity
3. Being secure
4. Having global reach

Correct Answer(s): 1

Explanation:

When you deploy an application across multiple Availability Zones the application can be considered to be highly available. You must also have a way of directing traffic to the application in each AZ such as an Elastic Load Balancer.

The diagram below depicts an example of a highly available application deployed on EC2 instances in multiple AZs and using an ELB to direct traffic:



CORRECT: "Being highly available" is the correct answer.

INCORRECT: "Having global reach" is incorrect as this refers to deploying applications that can be connected to from around the world and also deploying applications into different regions.

INCORRECT: "Being secure" is incorrect as this is not an example of the implementation of security.

INCORRECT: "Having elasticity" is incorrect. Auto Scaling is an example of elasticity and it is not mentioned in this question.

References:

https://aws.amazon.com/about-aws/global-infrastructure/regions_az/

Question 30:

A company wants to utilize a pay as you go cloud model for all of their applications without CAPEX costs and which is highly elastic. Which cloud delivery model will suit them best?

1. Hybrid
2. On-premise
3. Public
4. Private

Correct Answer(s): 3

Explanation:

The public cloud is offered under a purely pay as you go model (unless you choose to reserve), and allows companies to completely avoid CAPEX costs. The public cloud is also highly elastic so companies can grow and shrink the applications as demand changes.

Private and on-premise clouds are essentially the same, though both could be managed by a third party and even could be delivered under an OPEX model by some vendors. However, they are typically more CAPEX heavy and the elasticity is limited.

A hybrid model combines public and private and this company wants to go all in on a single model.

CORRECT: "Public" is the correct answer.

INCORRECT: "Private" is incorrect as explained above.

INCORRECT: "Hybrid" is incorrect as explained above.

INCORRECT: "On-premise" is incorrect as explained above.

References:

<https://aws.amazon.com/types-of-cloud-computing/>

Question 31:

Which AWS service lets connected devices easily and securely interact with cloud applications and other devices?

1. AWS IoT Core
2. Amazon Workspaces
3. AWS Directory Service
4. AWS Server Migration Service (SMS)

Correct Answer(s): 1

Explanation:

AWS IoT Core is a managed cloud service that lets connected devices easily and securely interact with cloud applications and other devices. AWS IoT Core can support billions of devices and trillions of messages, and can process and route those messages to AWS endpoints and to other devices reliably and securely.

CORRECT: "AWS IoT Core" is the correct answer.

INCORRECT: "AWS Directory Service" is incorrect. AWS Directory Service for Microsoft Active Directory, also known as AWS Managed Microsoft AD, enables your directory-aware workloads and AWS resources to use managed Active Directory in the AWS Cloud

INCORRECT: "AWS IoT Core" is incorrect. Amazon WorkSpaces is a managed, secure cloud desktop service

INCORRECT: "AWS Server Migration Service (SMS)" is incorrect. AWS Server Migration Service (SMS) is an agentless service which makes it easier and faster for you to migrate thousands of on-premises workloads to AWS.

References:

<https://aws.amazon.com/iot-core/>

Question 32:

Which of the following Amazon EC2 pricing models allows customers to use existing server-bound software licenses?

1. Dedicated Hosts
2. On-Demand Instances
3. Spot Instances
4. Reserved Instances

Correct Answer(s): 1

Explanation:

Amazon EC2 Dedicated Hosts allow you to use your eligible software licenses from vendors such as Microsoft and Oracle on Amazon EC2, so that you get the flexibility and cost effectiveness of using your own licenses, but with the resiliency, simplicity and elasticity of AWS. An Amazon EC2 Dedicated Host is a physical server fully dedicated for your use, so you can help address corporate compliance requirements.

CORRECT: "Dedicated Hosts" is the correct answer.

INCORRECT: "On-Demand Instances" is incorrect. This is a standard pricing model and does not offer the advantages requested.

INCORRECT: "Spot Instances" is incorrect. This is used to obtain discounted pricing for short-term requirements that can be interrupted.

INCORRECT: "Reserved Instances" is incorrect. This is used to lower cost by reserving usage of an instance for a term of 1 or 3 years.

References:

<https://aws.amazon.com/ec2/dedicated-hosts/>

Question 33:

A cloud practitioner needs to decrease application latency and increase performance for globally distributed users.

Which services can assist? (Select TWO.)

1. Amazon ECS
2. Amazon CloudFront
3. Amazon ElastiCache
4. Amazon AppStream 2.0

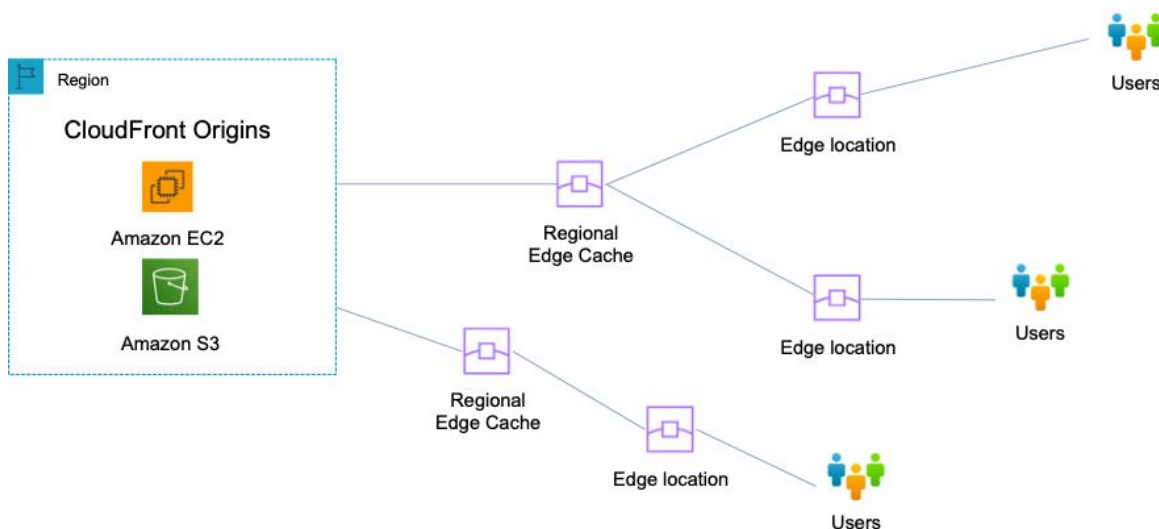
5. Amazon S3

Correct Answer(s): 2, 5

Explanation:

Amazon S3 is an object-based storage system. It can be used to store data such as files and images that need to be served. Optionally, an S3 bucket can be configured as a static website. Amazon CloudFront is a content delivery network (CDN) that caches content at Edge Locations around the world.

These two services can work together with an S3 bucket configured as an origin for the CloudFront distribution. Users around the world will then be able to pull the content from the local Edge Location with lower latency and better performance.



CORRECT: "Amazon S3" is a correct answer.

CORRECT: "Amazon CloudFront" is also a correct answer.

INCORRECT: "Amazon ECS" is incorrect. The Elastic Container Service (ECS) is used for running Docker containers on AWS. This is not going to help with reducing latency or increasing performance for global users.

INCORRECT: "Amazon AppStream 2.0" is incorrect. This is an application streaming service for streaming applications to computers. It is unsuitable for these requirements.

INCORRECT: "Amazon ElastiCache" is incorrect. ElastiCache caches data from a database in-memory. It is unsuitable for these requirements.

References:

<https://aws.amazon.com/cloudfront/>

<https://aws.amazon.com/s3/>

Question 34:

Which service can you use to monitor, store and access log files generated by EC2 instances and on-premises servers?

1. Amazon CloudWatch Logs
2. Amazon Kinesis
3. AWS OpsWorks
4. AWS CloudTrail

Correct Answer(s): 1

Explanation:

You can use Amazon CloudWatch Logs to monitor, store, and access your log files from Amazon Elastic Compute Cloud (Amazon EC2) instances, AWS CloudTrail, Route 53, and other sources. You can then retrieve the associated log data from CloudWatch Logs.

CORRECT: "Amazon CloudWatch Logs" is the correct answer.

INCORRECT: "AWS CloudTrail" is incorrect. AWS CloudTrail is used for recording a history of API actions taken on your account.

INCORRECT: "AWS OpsWorks" is incorrect. OpsWorks is a configuration management service.

INCORRECT: "Amazon Kinesis" is incorrect. Amazon Kinesis is a set of services used for collecting, processing and analyzing streaming data.

References:

<https://docs.aws.amazon.com/AmazonCloudWatch/latest/logs/WhatIsCloudWatchLogs.html>

<https://docs.aws.amazon.com/AmazonCloudWatch/latest/logs/WhatIsCloudWatchLogs.html>

Question 35:

Which AWS service can be used to send automated notifications to HTTP endpoints?

1. Amazon SES
2. Amazon SWF
3. Amazon SQS
4. Amazon SNS

Correct Answer(s): 4

Explanation:

Amazon Simple Notification Service (Amazon SNS) is a web service that makes it easy to set up, operate, and send notifications from the cloud. SNS can be used to send automated or manual notifications to email, mobile (SMS), SQS, and HTTP endpoints.

CORRECT: "Amazon SNS" is the correct answer.

INCORRECT: "Amazon SQS" is incorrect. Amazon Simple Queue Service (SQS) is a fully managed message queuing service that enables you to decouple and scale microservices, distributed systems, and serverless applications. This is a message bus, not a notification service.

INCORRECT: "Amazon SWF" is incorrect. Amazon SWF helps developers build, run, and scale background jobs that have parallel or sequential step. It is not a notification service.

INCORRECT: "Amazon SES" is incorrect. Amazon Simple Email Service (Amazon SES) is a cloud-based email sending service designed to help digital marketers and application developers send marketing, notification, and transactional emails. It is limited to sending email.

References:

<https://aws.amazon.com/sns/>

Question 36:

Which support plan is the lowest cost option that allows unlimited cases to be open?

1. Basic
2. Enterprise
3. Business
4. Developer

Correct Answer(s): 4

Explanation:

With the Developer plan you can open unlimited cases. You can also open unlimited cases with the Business and Enterprise plans but these are more expensive. You cannot open any support cases with the basic support plan.

CORRECT: "Developer" is the correct answer.

INCORRECT: "Basic" is incorrect as explained above.

INCORRECT: "Business" is incorrect as explained above.

INCORRECT: "Enterprise" is incorrect as explained above.

References:

<https://aws.amazon.com/premiumsupport/plans/>

Question 37:

Which AWS service can assist with providing recommended actions on cost optimization?

1. AWS Artifact
2. AWS Trusted Advisor
3. Amazon CloudWatch Events
4. AWS Inspector

Correct Answer(s): 2

Explanation:

Trusted Advisor is an online resource that helps to reduce cost, increase performance and improve security by optimizing your AWS environment.

CORRECT: "AWS Trusted Advisor" is the correct answer.

INCORRECT: "AWS Inspector" is incorrect. Inspector is an automated security assessment service that helps improve the security and compliance of applications deployed on AWS.

INCORRECT: "AWS Artifact" is incorrect. AWS Artifact is a resource for obtaining compliance-related information.

INCORRECT: "Amazon CloudWatch Events" is incorrect. Amazon CloudWatch Events delivers a near real-time stream of system events that describe changes in Amazon Web Services (AWS) resources.

References:

<https://aws.amazon.com/premiumsupport/technology/trusted-advisor/>

Question 38:

Which DynamoDB feature provides in-memory acceleration to tables that result in significant performance improvements?

1. Amazon ElastiCache
2. Amazon CloudFront
3. Amazon DynamoDB Accelerator (DAX)
4. Amazon EFS

Correct Answer(s): 3**Explanation:**

Amazon DynamoDB Accelerator (DAX) is a fully managed, highly available, in-memory cache for DynamoDB that delivers up to a 10x performance improvement – from milliseconds to microseconds – even at millions of requests per second.

DAX does all the heavy lifting required to add in-memory acceleration to your DynamoDB tables, without requiring developers to manage cache

invalidation, data population, or cluster management.

CORRECT: "Amazon DynamoDB Accelerator (DAX)" is the correct answer.

INCORRECT: "Amazon ElastiCache" is incorrect. This service is also an in-memory cache but it is not a feature of DynamoDB.

INCORRECT: "Amazon EFS" is incorrect. This is an elastic filesystem based on the NFS protocol.

INCORRECT: "Amazon CloudFront" is incorrect. This is a content delivery network for caching content.

References:

<https://aws.amazon.com/dynamodb/dax/>

Question 39:

Which AWS service is part of the suite of "serverless" services and runs code as functions?

1. AWS CodeCommit
2. Amazon EKS
3. AWS Lambda
4. Amazon ECS

Correct Answer(s): 3

Explanation:

AWS Lambda is a serverless compute service that runs your code in response to events and automatically manages the underlying compute resources for you. The code you run on AWS Lambda is called a "Lambda function".

CORRECT: "AWS Lambda" is the correct answer.

INCORRECT: "Amazon ECS" is incorrect. Amazon ECS is used for running software containers such as Docker containers.

INCORRECT: "Amazon EKS" is incorrect. Amazon EKS is used for managing software containers such as Docker containers.

INCORRECT: "AWS CodeCommit" is incorrect. AWS CodeCommit is a fully-managed source control service that hosts secure Git-based repositories.

References:

<https://aws.amazon.com/lambda/>

<https://aws.amazon.com/lambda/features/>

Question 40:

Which type of storage stores objects comprised of key, value pairs?

1. Amazon S3
2. Amazon DynamoDB
3. Amazon EFS
4. Amazon EBS

Correct Answer(s): 1

Explanation:

Amazon Simple Storage Service is storage for the Internet. It is designed to make web-scale computing easier for developers. Amazon S3 is an object-based storage system that stores objects that are comprised of key, value pairs.

CORRECT: "Amazon S3" is the correct answer.

INCORRECT: "Amazon DynamoDB" is incorrect. Amazon DynamoDB stores items, not objects, based on key, value pairs.

INCORRECT: "Amazon EBS" is incorrect. Amazon EBS is a block-based storage system.

INCORRECT: "Amazon EFS" is incorrect. Amazon EFS is a file-based storage system.

References:

<https://docs.aws.amazon.com/AmazonS3/latest/dev/Welcome.html>

Question 41:

Which of the below is an example of optimizing for cost?

1. Replace an EC2 compute instance with AWS Lambda
2. Choosing the fastest EC2 instance to ensure performance
3. Deploy resources with AWS CloudFormation
4. Provision extra capacity to allow for growth

Correct Answer(s): 1

Explanation:

Where possible, you should replace EC2 workloads with AWS managed services that don't require you to take any capacity decisions. AWS Lambda is a serverless services and you only pay for actual processing time. Other examples of services that you don't need to make capacity decisions with include: ELB, CloudFront, SQS, Kinesis Firehose, SES, and CloudSearch.

CORRECT: "Replace an EC2 compute instance with AWS Lambda" is the correct answer.

INCORRECT: "Choosing the fastest EC2 instance to ensure performance" is incorrect. You should not choose the fastest EC2 instance if you're trying to optimize for cost as this will be expensive, you should right-size your EC2 instances, so you use the cheapest EC2 instance to suit your workload's requirements.

INCORRECT: "Provision extra capacity to allow for growth" is incorrect. Provisioning extra capacity for growth is not an example of cost optimization. With cloud computing you no longer need to do this as you can configure applications, databases and storage systems to grow on demand.

INCORRECT: "Deploy resources with AWS CloudFormation" is incorrect. Deploying resources with CloudFormation is great for consistently deploying application configurations from a template. However, this is not an example of cost optimization, it is more an example of operational optimization.

References:

<https://aws.amazon.com/aws-cost-management/>

Question 42:

Which of the following descriptions is incorrect in relation to the design of Availability Zones?

1. AZs are physically separated within a typical metropolitan region and are located in lower risk flood plains
2. Each AZ is designed as an independent failure zone
3. AZ's have direct, low-latency, high throughput and redundant network connections between each other
4. Each subnet in a VPC is mapped to all AZs in the region

Correct Answer(s): 4

Explanation:

Subnets are created within a single AZ and do not get mapped to multiple AZs.

CORRECT: "Each subnet in a VPC is mapped to all AZs in the region" is the correct answer.

INCORRECT: "AZ's have direct, low-latency, high throughput and redundant network connections between each other" is incorrect as this is true.

INCORRECT: "Each AZ is designed as an independent failure zone" is incorrect as this is true.

INCORRECT: "AZs are physically separated within a typical metropolitan region and are located in lower risk flood plains" is incorrect as this is true.

References:

<https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/using-regions-availability-zones.html>

Question 43:

Which type of Amazon RDS automated backup allows you to restore the database with a granularity of as little as 5 minutes?

1. Full backup
2. Snapshot backup
3. Point-in-time recovery
4. Incremental backup

Correct Answer(s): 3

Explanation:

You can restore an Amazon RDS database instance to a specific point in time with a granularity of 5 minutes. Amazon RDS uses transaction logs which it uploads to Amazon S3 to do this.

CORRECT: "Point-in-time recovery" is the correct answer.

INCORRECT: "Snapshot backup" is incorrect. This is not a point-in-time backup with 5 minute granularity.

INCORRECT: "Full backup" is incorrect. This just describes taking a fully backup of the database, typically with backup software.

INCORRECT: "Incremental backup" is incorrect. This describes taking a backup of items that have changed since the last backup.

References:

https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/USER_PIT.html

Question 44:

Assuming you have configured them correctly, which AWS services can scale automatically without intervention? (choose 2)

1. Amazon EBS
2. Amazon S3
3. Amazon DynamoDB
4. Amazon EC2
5. Amazon RDS

Correct Answer(s): 2, 3

Explanation:

Both S3 and DynamoDB automatically scale as demand dictates. In the case of DynamoDB you can either configure the on-demand or provisioned capacity mode. With on-demand capacity mode DynamoDB automatically adjusts the read and write throughput for you.

EBS and RDS do not scale automatically. You must intervene to adjust volume sizes and database instance types to scale these resources

CORRECT: "Amazon S3" is a correct answer.

CORRECT: "Amazon DynamoDB" is also a correct answer.

INCORRECT: "Amazon RDS" is incorrect as explained above.

INCORRECT: "Amazon EC2" is incorrect. EC2 cannot scale automatically. You need to use Auto Scaling to scale the number of EC2 instances deployed.

INCORRECT: "Amazon EBS" is incorrect as explained above.

References:

<https://aws.amazon.com/blogs/architecture/tag/scalability/>

Question 45:

What is the name of the online, self-service portal that AWS provides to enable customers to view reports and, such as PCI reports, and accept agreements?

1. AWS Compliance Portal
2. AWS DocuFact
3. AWS Artifact
4. AWS Documentation Portal

Correct Answer(s): 3

Explanation:

AWS Artifact is your go-to, central resource for compliance-related information that matters to you. It provides on-demand access to AWS' security and compliance reports and select online agreements.

Reports available in AWS Artifact include our Service Organization Control (SOC) reports, Payment Card Industry (PCI) reports, and certifications from accreditation bodies across geographies and compliance verticals that validate the implementation and operating effectiveness of AWS security controls.

Agreements available in AWS Artifact include the Business Associate Addendum (BAA) and the Nondisclosure Agreement (NDA).

CORRECT: "AWS Artifact" is the correct answer.

INCORRECT: "AWS Compliance Portal" is incorrect as this is not a real service.

INCORRECT: "AWS Documentation Portal" is incorrect as this is not a real service.

INCORRECT: AWS DocuFact"" is incorrect as this is not a real service.

References:

<https://aws.amazon.com/artifact/>

Question 46:

To reward customers for using their services, what are two ways AWS reduce prices? (choose 2)

1. Reduction in inbound data transfer charges
2. Discounts for using a wider variety of services
3. Reduced cost for reserved capacity
4. Volume based discounts when you use more services
5. Removal of termination fees for customers who spend more

Correct Answer(s): 3, 4

Explanation:

AWS provide volume based discount so that when you use more services you reduce the cost per service. You can also reserve capacity by locking in to fixed 1 or 3 year contracts to get significant discounts

You never pay for inbound data transfer

You don't get discounts for using a variety of services, only when you use more services

There are never termination fees with AWS

CORRECT: "Volume based discounts when you use more services" is the correct answer.

CORRECT: "Reduced cost for reserved capacity" is the correct answer.

INCORRECT: "Reduction in inbound data transfer charges" is incorrect \$

INCORRECT: "Discounts for using a wider variety of services" is incorrect \$

INCORRECT: "Removal of termination fees for customers who spend more" is incorrect \$

References:

<https://aws.amazon.com/pricing/>

Question 47:

What are two benefits of using AWS Lambda? (choose 2)

1. No servers to manage
2. Open source software
3. Integrated snapshots
4. Continuous scaling (scale out)
5. Flexible operating system choices

Correct Answer(s): 1, 4

Explanation:

With AWS Lambda you don't have any servers to manage (serverless). Lambda functions scale out rather than up running multiple invocations of the function in parallel.

CORRECT: "No servers to manage" is a correct answer.

CORRECT: "Continuous scaling (scale out)" is also a correct answer.

INCORRECT: "Integrated snapshots" is incorrect. You do not have integrated snapshots (or any persistent storage) with Lambda.

INCORRECT: "Flexible operating system choices" is incorrect. You do not manage the operating system on which the functions run so have no choice of software.

INCORRECT: "Open source software" is incorrect. Lambda is AWS proprietary not open source.

References:

<https://aws.amazon.com/lambda/>

Question 48:

A Cloud Practitioner needs to rapidly deploy a popular IT solution and start using it immediately.

What should the Cloud Practitioner use?

1. AWS Quick Start reference deployments
2. AWS Well-Architected Framework documentation
3. AWS Elastic Beanstalk
4. Amazon CloudFront

Correct Answer(s): 1

Explanation:

Quick Starts are built by AWS solutions architects and partners to help you deploy popular technologies on AWS, based on AWS best practices for security and high availability. These accelerators reduce hundreds of manual procedures into just a few steps, so you can build your production environment quickly and start using it immediately.

Each Quick Start includes AWS CloudFormation templates that automate the deployment and a guide that discusses the architecture and provides step-by-step deployment instructions.

CORRECT: "AWS Quick Start reference deployments" is the correct answer.

INCORRECT: "AWS Well-Architected Framework documentation" is incorrect. The well architected framework is documentation that provides guidance on design best practices. It is not used to actually deploy anything.

INCORRECT: "Amazon CloudFront" is incorrect. CloudFront is a content delivery network (CDN) that caches content for better performance.

INCORRECT: "AWS Elastic Beanstalk" is incorrect. Elastic Beanstalk can be used to easily deploy certain web applications. However, you still need to supply the code and it is limited to EC2 instances.

References:

<https://aws.amazon.com/quickstart/>

Question 49:

Which tools can you use to manage identities in IAM? (choose 2)

1. AWS Command Line Tools
2. EC2 Management Console
3. Amazon CloudWatch API
4. Amazon Workspaces
5. AWS Management Console

Correct Answer(s): 1, 5

Explanation:

You can manage AWS Identity and Access Management identities through the AWS Management Console, AWS Command Line Tools, AWS SDKs, and IAM HTTPS API.

CORRECT: "AWS Management Console" is a correct answer.

CORRECT: "AWS Command Line Tools" is also a correct answer.

INCORRECT: "Amazon CloudWatch API" is incorrect. CloudWatch is not used for managing identities in IAM. It is a service used for monitoring the state of your AWS resources.

INCORRECT: "EC2 Management Console" is incorrect. The EC2 management console cannot be used for managing identities in IAM.

INCORRECT: "Amazon Workspaces" is incorrect. Amazon WorkSpaces is a managed desktop computing service running on the AWS cloud.

References:

<https://aws.amazon.com/iam/>

Question 50:

A company has deployed several relational databases on Amazon RDS. Every month, the database software vendor releases new security patches that need to be applied to the database.

What is the MOST efficient way to apply the security patches?

1. Use AWS Systems Manager to automate database patching according to a schedule
2. Connect to each database instance on a monthly basis, and download and apply the necessary security patches from the vendor
3. Enable automatic patching for the instances using the Amazon RDS console
4. In AWS Config, configure a rule for the instances and the required patch level

Correct Answer(s): 3

Explanation:

Periodically, Amazon RDS performs maintenance on Amazon RDS resources. Maintenance most often involves updates to the DB instance's underlying hardware, underlying operating system (OS), or database engine version. Updates to the operating system most often occur for security issues and should be done as soon as possible.

Required patching is automatically scheduled only for patches that are related to security and instance reliability. Such patching occurs infrequently (typically once every few months) and seldom requires more than a fraction of your maintenance window.

All you need to do to get enable patching is specify the maintenance window in which the patching will take place. This can be done at instance creation time or at any time afterwards.

CORRECT: "Enable automatic patching for the instances using the Amazon RDS console" is the correct answer.

INCORRECT: "Connect to each database instance on a monthly basis, and download and apply the necessary security patches from the vendor" is incorrect. Amazon RDS is a managed service and you do not need to do this manually.

INCORRECT: "In AWS Config, configure a rule for the instances and the required patch level" is incorrect. This service is used for auditing and evaluating resource configurations.

INCORRECT: "Use AWS Systems Manager to automate database patching according to a schedule" is incorrect. Systems Manager can be used to manage EC2 instances but it cannot be used to patch RDS instances.

References:

https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/USER_UpgradeDBInstance.Maintenance.html

Question 51:

A company needs protection from distributed denial of service (DDoS) attacks on its website and assistance from AWS experts during such events.

Which AWS managed service will meet these requirements?

1. AWS Firewall Manager
2. AWS Web Application Firewall
3. AWS Shield Advanced
4. Amazon GuardDuty

Correct Answer(s): 3

Explanation:

AWS Shield Advanced provides enhanced detection and includes a specialized support team for customers on Enterprise or Business support plans. The AWS DDoS Response Team (DRT) are available 24/7 and can be engaged before, during, or after a DDoS attack.

CORRECT: "AWS Shield Advanced" is the correct answer.

INCORRECT: "AWS Firewall Manager" is incorrect. This service is used to simplify management of AWS WAF, AWS Shield Advanced, and Amazon VPC security groups.

INCORRECT: "AWS Web Application Firewall" is incorrect. AWS WAF is used for protecting web applications and APIs against malicious attacks. This is not a DDoS prevention service.

INCORRECT: "Amazon GuardDuty" is incorrect. This service is used for continuously monitoring AWS resources for threats. It is not a DDoS prevention service, it uses machine learning and anomaly detection to identify security vulnerabilities in resources.

References:

<https://aws.amazon.com/shield/getting-started/>

Question 52:

Under the AWS Shared Responsibility Model, which of the following is the customer NOT responsible for?

1. Applying bucket policies to share Amazon S3 data
2. Adding firewall rules to security groups and network ACLs
3. Installing firmware updates on host servers
4. Applying encryption to data stored on an EBS volume

Correct Answer(s): 3

Explanation:

AWS customers are not responsible for installing firmware updates on the underlying infrastructure. AWS customers must protect their AWS services through policies, encryption, and firewall rules.

CORRECT: "Installing firmware updates on host servers" is the correct answer.

INCORRECT: "Adding firewall rules to security groups and network ACLs" is incorrect as this is a customer responsibility.

INCORRECT: "Applying encryption to data stored on an EBS volume" is incorrect as this is a customer responsibility.

INCORRECT: "Applying bucket policies to share Amazon S3 data" is incorrect as this is a customer responsibility.

References:

<https://aws.amazon.com/compliance/shared-responsibility-model/>

Question 53:

Which AWS service can be used to prepare and load data for analytics using an extract, transform and load (ETL) process?

1. Amazon Athena
2. AWS Glue
3. Amazon EMR
4. AWS Lambda

Correct Answer(s): 2

Explanation:

AWS Glue is a fully managed extract, transform, and load (ETL) service that makes it easy for customers to prepare and load their data for analytics.

You can point AWS Glue to data stored on AWS, and AWS Glue discovers the data and stores the associated metadata (e.g. table definition and schema) in the AWS Glue Data Catalog. Once cataloged, the data is immediately searchable, queryable, and available for ETL.

CORRECT: "AWS Glue" is the correct answer.

INCORRECT: "AWS Lambda" is incorrect. AWS Lambda is a serverless application that runs code as functions in response to events

INCORRECT: "Amazon EMR" is incorrect. Amazon Elastic Map Reduce (EMR) provides a managed Hadoop framework that makes it easy, fast, and cost-effective to process vast amounts of data across dynamically scalable Amazon EC2 instances

INCORRECT: "Amazon Athena" is incorrect. Amazon Athena is an interactive query service that makes it easy to analyze data in Amazon S3 using standard SQL.

References:

<https://aws.amazon.com/glue/>

Question 54:

What offerings are included in the Amazon LightSail product set? (choose 2)

1. Object storage
2. Serverless functions
3. NoSQL database
4. Virtual Private Server
5. Managed MySQL database

Correct Answer(s): 4, 5

Explanation:

Amazon LightSail provides an easy, low cost way to consume cloud services without needing the skill set for using VPC resources. The product set includes virtual private servers (instances), managed MySQL databases, HA storage, and load balancing

You can connect to other AWS services such as S3, DynamoDB, and CloudFront, however these are not part of the LightSail product range

CORRECT: "Virtual Private Server" is a correct answer.

CORRECT: "Managed MySQL database" is also a correct answer.

INCORRECT: "NoSQL database" is incorrect as explained above.

INCORRECT: "Object storage" is incorrect as explained above.

INCORRECT: "Serverless functions" is incorrect as explained above.

References:

<https://aws.amazon.com/lightsail/features/>

Question 55:

How can an online education company ensure their video courses play with minimal latency for their users around the world?

1. Use Amazon EBS Cross Region Replication to get the content close to the users
2. Use Amazon S3 Transfer Acceleration to speed up downloads
3. Use Amazon Aurora Global Database
4. Use Amazon CloudFront to get the content closer to users

Correct Answer(s): 4

Explanation:

Amazon CloudFront is a content delivery network (CDN) that enables you to cache content in Edge Locations that are located around the world. This brings your media closer to your end users which reduces latency and improves the user experience.

CORRECT: "Use Amazon CloudFront to get the content closer to users" is the correct answer.

INCORRECT: "Use Amazon S3 Transfer Acceleration to speed up downloads" is incorrect. Amazon S3 Transfer Acceleration is a feature that is used for accelerating uploads to Amazon S3, not for downloads.

INCORRECT: "Use Amazon EBS Cross Region Replication to get the content close to the users" is incorrect. Amazon EBS Cross Region Replication does not exist (S3 Cross Region Replication does). You can copy EBS volumes across regions manually (or programmatically), however EBS is not a good way to get your content closer to your users as you would need to mount the volume to an EC2 instance (additional cost) and would also need to find a way to keep your files in sync.

INCORRECT: "Use Amazon Aurora Global Database" is incorrect. Amazon Aurora Global Database is designed for globally distributed applications, allowing a single Amazon Aurora database to span multiple AWS regions.

This is a way to have an SQL database across regions, which is not a good use case for hosting media files.

References:

<https://aws.amazon.com/cloudfront/>

Question 56:

A developer needs a way to automatically provision a collection of AWS resources. Which AWS service is primarily used for deploying infrastructure as code?

1. AWS CloudFormation
2. AWS Elastic Beanstalk
3. Jenkins
4. AWS CodeDeploy

Correct Answer(s): 1

Explanation:

AWS CloudFormation is a service that gives developers and businesses an easy way to create a collection of related AWS resources and provision them in an orderly and predictable fashion. AWS CloudFormation provides a common language for you to describe and provision all the infrastructure resources in your cloud environment. Think of CloudFormation as deploying infrastructure as code.

CORRECT: "AWS CloudFormation" is the correct answer.

INCORRECT: "AWS Elastic Beanstalk" is incorrect. Elastic Beanstalk is more focused on deploying applications on EC2 (PaaS).

INCORRECT: "AWS CodeDeploy" is incorrect. AWS CodeDeploy is a fully managed deployment service that automates software deployments to a variety of compute services such as Amazon EC2, AWS Lambda, and your on-premises servers.

INCORRECT: "Jenkins" is incorrect. Jenkins deploys infrastructure as code but is not an AWS service.

References:

<https://aws.amazon.com/cloudformation/>

Question 57:

How can a company protect their Amazon S3 data from a regional disaster?

1. Use lifecycle actions to move to another S3 storage class
2. Use Cross-Region Replication (CRR) to copy to another region
3. Archive to Amazon Glacier
4. Enable Multi-Factor Authentication (MFA) delete

Correct Answer(s): 2**Explanation:**

Cross-Region replication (CRR) is used to copy objects across Amazon S3 buckets in different AWS Regions. The only option here that will help is to use CRR to copy the data to another region. This will provide disaster recovery.

CORRECT: "Use Cross-Region Replication (CRR) to copy to another region" is the correct answer.

INCORRECT: "Archive to Amazon Glacier" is incorrect. Moving to Glacier does not copy the data out of the region.

INCORRECT: "Use lifecycle actions to move to another S3 storage class" is incorrect as this will not move the data to another region.

INCORRECT: "Enable Multi-Factor Authentication (MFA) delete" is incorrect. Enabling MFA delete will not protect the data from a regional disaster.

References:

<https://docs.aws.amazon.com/AmazonS3/latest/dev/replication.html>

Question 58:

Which AWS feature of Amazon EC2 allows an administrator to create a standardized image that can be used for launching new instances?

1. Amazon Machine Image
2. Amazon Golden Image
3. Amazon Block Template
4. Amazon EBS Mount Point

Correct Answer(s): 1

Explanation:

An Amazon Machine Image (AMI) provides the information required to launch an instance. You can use an AMI to launch identical instances from a standard template. This is also known as a Golden Image (though no such feature exists in AWS with this name). An AMI is created from an EBS snapshot and also includes launch permissions and a block device mapping.

CORRECT: "Amazon Machine Image" is the correct answer.

INCORRECT: "Amazon Golden Image" is incorrect as this is not an AWS feature.

INCORRECT: "Amazon Block Template" is incorrect. Amazon Block Templates do not exist.

INCORRECT: "Amazon EBS Mount Point" is incorrect. An Amazon EBS Mount Point is not an AWS feature. You do mount EBS volumes however this is within the operating system. Block device mappings are used in AMIs to specify how to mount the EBS volume.

References:

<https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/AMIs.html>

Question 59:

When designing a VPC, what is the purpose of an Internet Gateway?

1. Provides Internet access for EC2 instances in private subnets
2. It's used for making VPN connections to a VPC
3. Enables Internet communications for instances in public subnets

4. It's a bastion host for inbound management connections

Correct Answer(s): 3

Explanation:

An internet gateway is a horizontally scaled, redundant, and highly available VPC component that allows communication between instances in your VPC and the internet. It therefore imposes no availability risks or bandwidth constraints on your network traffic.

An internet gateway serves two purposes: to provide a target in your VPC route tables for internet-routable traffic, and to perform network address translation (NAT) for instances that have been assigned public IPv4 addresses.

CORRECT: "Enables Internet communications for instances in public subnets" is the correct answer.

INCORRECT: "Provides Internet access for EC2 instances in private subnets" is incorrect. You cannot connect instances in a private subnet to the Internet using an Internet Gateway, you need a NAT Gateway or NAT Instance for this purpose.

INCORRECT: "It's a bastion host for inbound management connections" is incorrect. You cannot use an Internet Gateway as a bastion host, deploy an EC2 instance in a public subnet for this purpose.

INCORRECT: "It's used for making VPN connections to a VPC" is incorrect. You cannot use the Internet Gateway for making VPN connections to a VPC, you need a Virtual Private Gateway for this purpose.

References:

https://docs.aws.amazon.com/vpc/latest/userguide/VPC_Internet_Gateway.html

Question 60:

Which AWS service enables developers and data scientists to build, train, and deploy machine learning models?

1. Amazon SageMaker
2. Amazon Rekognition
3. Amazon MQ
4. Amazon Comprehend

Correct Answer(s): 1

Explanation:

Amazon SageMaker is a fully-managed platform that enables developers and data scientists to quickly and easily build, train, and deploy machine learning models at any scale. Amazon SageMaker removes all the barriers that typically slow down developers who want to use machine learning.

CORRECT: "Amazon SageMaker" is the correct answer.

INCORRECT: "Amazon Rekognition" is incorrect. Amazon Rekognition makes it easy to add image and video analysis to your applications.

INCORRECT: "Amazon Comprehend" is incorrect. Amazon Comprehend is a natural language processing (NLP) service that uses machine learning to find insights and relationships in text

INCORRECT: "Amazon MQ" is incorrect. Amazon MQ is a managed message broker service for Apache ActiveMQ that makes it easy to set up and operate message brokers in the cloud.

References:

<https://aws.amazon.com/sagemaker/>

Question 61:

A Cloud Practitioner is developing a disaster recovery plan and intends to replicate data between multiple geographic areas.

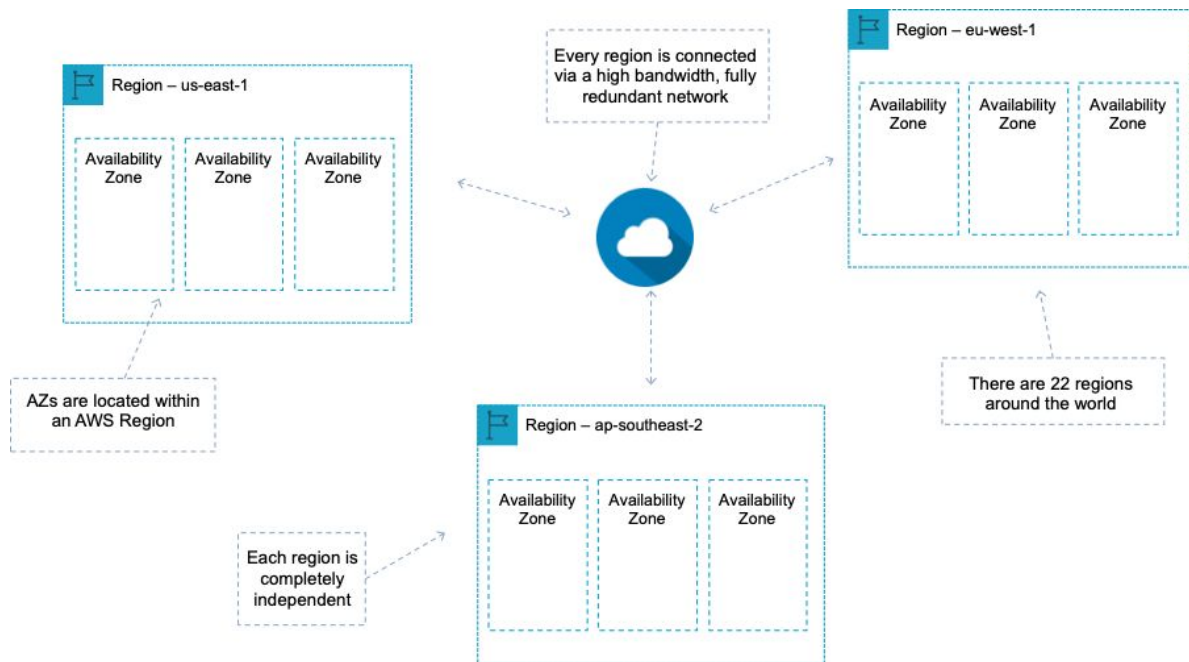
Which of the following meets these requirements?

1. AWS Regions
2. Edge locations
3. Availability Zones
4. AWS Accounts

Correct Answer(s): 1

Explanation:

AWS has the concept of a Region, which is a physical location around the world where we cluster data centers. We call each group of logical data centers an Availability Zone. Each AWS Region consists of multiple, isolated, and physically separate AZ's within a geographic area.



Therefore, the Cloud Practitioner should replicate data between multiple Regions as these are separate geographical areas.

CORRECT: "AWS Regions" is the correct answer.

INCORRECT: "AWS Accounts" is incorrect. An account is not a geographic area.

INCORRECT: "Availability Zones" is incorrect. AZs are within a Region, not across geographical areas.

INCORRECT: "Edge locations" is incorrect. These are not locations to which you can replicate your data. They are used primarily by Amazon CloudFront for caching content, not for disaster recovery.

References:

https://aws.amazon.com/about-aws/global-infrastructure/regions_az/

Question 62:

What feature of Amazon S3 enables you to set rules to automatically transfer objects between different storage classes at defined time intervals?

1. Elastic Data Management
2. S3 Archiving
3. Auto Lifecycle Scaling
4. Object Lifecycle Management

Correct Answer(s): 4

Explanation:

Object lifecycle management can be used with objects so that they are stored cost effectively throughout their lifecycle. Objects can be transitioned to another storage class or expired.

All other options are incorrect as they are not services that can automatically transfer objects between S3 storage classes.

CORRECT: "Object Lifecycle Management" is the correct answer.

INCORRECT: "Elastic Data Management" is incorrect as explained above.

INCORRECT: "Auto Lifecycle Scaling" is incorrect as explained above.

INCORRECT: "S3 Archiving" is incorrect as explained above.

References:

<https://docs.aws.amazon.com/AmazonS3/latest/dev/object-lifecycle-mgmt.html>

Question 63:

What are two correct statements about AWS Organizations with consolidated billing? (choose 2)

1. Multiple bills are provided per organization
2. Volume pricing discounts applied across multiple accounts
3. One bill provided for multiple accounts

4. Linked accounts lose their management independence
5. CloudTrail can be configured per organization

Correct Answer(s): 2, 3

Explanation:

With AWS organizations you create a paying account and linked accounts. One bill is provided for multiple accounts within an organization. Volume pricing discounts can be applied across resources in multiple accounts.

CORRECT: "One bill provided for multiple accounts" is a correct answer.

CORRECT: "Volume pricing discounts applied across multiple accounts" is also a correct answer.

INCORRECT: "Multiple bills are provided per organization" is incorrect as one bill is provided for multiple accounts within an organization.

INCORRECT: "Linked accounts lose their management independence" is incorrect. Linked accounts can still be managed independently.

INCORRECT: "CloudTrail can be configured per organization" is incorrect. CloudTrail is on a per account basis and per region basis but can be aggregated into a single bucket in the paying account.

References:

<https://aws.amazon.com/organizations/>

Question 64:

What is the name of the AWS managed Docker registry service used by the Amazon Elastic Container Service (ECS)?

1. Docker Image Repository
2. ECS Container Registry
3. Elastic Container Registry
4. Docker Container Registry

Correct Answer(s): 3

Explanation:

Amazon Elastic Container Registry (ECR) is a fully-managed Docker container registry that makes it easy for developers to store, manage, and deploy Docker container images.

Amazon ECR is integrated with Amazon Elastic Container Service (ECS). Amazon ECR eliminates the need to operate your own container repositories or worry about scaling the underlying infrastructure.

CORRECT: "Elastic Container Registry" is the correct answer.

INCORRECT: "ECS Container Registry" is incorrect as this is the wrong name.

INCORRECT: "Docker Container Registry" is incorrect as this is not an AWS registry.

INCORRECT: "Docker Image Repository" is incorrect as this is not an AWS registry.

References:

<https://aws.amazon.com/ecr/>

Question 65:

Which of the following statements is correct about Amazon S3 cross-region replication?

1. S3 buckets configured for cross-region replication can be owned by a single AWS account or by different accounts
2. Both source and destination S3 buckets must have versioning disabled
3. The source and destination S3 buckets cannot be in different AWS Regions
4. The source S3 bucket owner must have the source and destination AWS Regions disabled for their account

Correct Answer(s): 1

Explanation:

Replication enables automatic, asynchronous copying of objects across Amazon S3 buckets. Buckets that are configured for object replication can be owned by the same AWS account or by different accounts. You can copy objects between different AWS Regions or within the same Region.

Both source and destination buckets must have versioning enabled. The source bucket owner must have the source and destination AWS Regions enabled for their account. The destination bucket owner must have the destination Region-enabled for their account.

CORRECT: "S3 buckets configured for cross-region replication can be owned by a single AWS account or by different accounts" is the correct answer.

INCORRECT: "Both source and destination S3 buckets must have versioning disabled" is incorrect as explained above.

INCORRECT: "The source and destination S3 buckets cannot be in different AWS Regions" is incorrect as explained above.

INCORRECT: "The source S3 bucket owner must have the source and destination AWS Regions disabled for their account" is incorrect as explained above.

References:

<https://docs.aws.amazon.com/AmazonS3/latest/dev/replication.html>

AWS CERTIFIED CLOUD PRACTITIONER

TEST 6

AWS CERTIFIED CLOUD PRACTITIONER:

TEST 6

Question 1:

Which of the following acts as a virtual firewall at the Amazon EC2 instance level to control traffic for one or more instances?

1. Network Access Control Lists (ACL)
2. Security groups
3. Virtual private gateways (VPG)
4. Route table

Correct Answer(s): 2

Explanation:

A security group is an instance-level firewall that can be used to control traffic that reaches (ingress/inbound) and is sent out from (egress/outbound) your EC2 instances. Rules are created for inbound or outbound traffic. A security group can be attached to multiple EC2 instances.

CORRECT: "Security groups" is the correct answer.

INCORRECT: "Network Access Control Lists (ACL)" is incorrect as this is subnet-level firewall. You do not attach a Network ACL to an instance, you attach it to a subnet.

INCORRECT: "Virtual private gateways (VPG)" is incorrect. A VPG is the Amazon side of an AWS Managed VPN.

INCORRECT: "Route table" is incorrect as this is not a firewall but a table of routes for directing traffic between subnets within a VPC.

References:

https://docs.aws.amazon.com/vpc/latest/userguide/VPC_SecurityGroups.html
1

Question 2:

A startup eCommerce company needs to quickly deliver new website features in an iterative manner, minimizing the time to market.

Which AWS Cloud feature allows this?

1. Reliability
2. Agility
3. Elasticity
4. High availability

Correct Answer(s): 2

Explanation:

In a cloud computing environment, new IT resources are only a click away, which means that you reduce the time to make those resources available to your developers from weeks to just minutes.

This results in a dramatic increase in agility for the organization, since the cost and time it takes to experiment and develop is significantly lower.

CORRECT: "Agility" is the correct answer.

INCORRECT: "High availability" is incorrect as this is associated with increased resilience, not agility.

INCORRECT: "Elasticity" is incorrect as this associated with the ability to adjust to demand and reduce the need to guess capacity requirements.

INCORRECT: "Reliability" is incorrect as this does not assist with bringing features to market faster.

References:

<https://docs.aws.amazon.com/whitepapers/latest/aws-overview/six-advantages-of-cloud-computing.html>

Question 3:

The AWS Cost Management tools give users the ability to do which of the following? (Select TWO.)

1. Terminate all AWS resources automatically if budget thresholds are exceeded
2. Break down AWS costs by day, service, and linked AWS account
3. Create budgets and receive notifications if current or forecasted usage exceeds the budgets
4. Move data stored in Amazon S3 to a more cost-effective storage class
5. Switch automatically to Reserved Instances or Spot Instances, whichever is most cost-effective

Correct Answer(s): 2, 3

Explanation:

AWS has a set of solutions to help you with cost management and optimization. This includes services, tools, and resources to organize and track cost and usage data, enhance control through consolidated billing and access permission, enable better planning through budgeting and forecasts, and further lower cost with resources and pricing optimizations.

However, these tools do not terminate resources, manipulate resources, or make changes to pricing models.

CORRECT: "Break down AWS costs by day, service, and linked AWS account" is the correct answer.

CORRECT: "Create budgets and receive notifications if current or forecasted usage exceeds the budgets" is the correct answer.

INCORRECT: "Terminate all AWS resources automatically if budget thresholds are exceeded" is incorrect as explained above.

INCORRECT: "Switch automatically to Reserved Instances or Spot Instances, whichever is most cost-effective" is incorrect as explained above.

INCORRECT: "Move data stored in Amazon S3 to a more cost-effective storage class" is incorrect as explained above.

References:

<https://aws.amazon.com/aws-cost-management/>

Question 4:

Which of the following are NOT features of AWS IAM? (choose 2)

1. Identity federation
2. PCI DSS compliance
3. Charged for what you use
4. Logon using local user accounts
5. Shared access to your AWS account

Correct Answer(s): 3, 4

Explanation:

You cannot use IAM to create local user accounts on any system. You are also not charged for what you use, IAM is free to use

The other options are all features of AWS IAM.

CORRECT: "Logon using local user accounts" is the correct answer.

CORRECT: "Charged for what you use" is the correct answer.

INCORRECT: "Shared access to your AWS account" is incorrect as explained above.

INCORRECT: "Identity federation" is incorrect as explained above.

INCORRECT: "PCI DSS compliance" is incorrect as explained above.

References:

<https://docs.aws.amazon.com/IAM/latest/UserGuide/introduction.html>

Question 5:

How can a company facilitate the sharing of data over private connections between two accounts they own within a region?

1. Create a subnet peering connection
2. Create a VPC peering connection
3. Configure matching CIDR address ranges
4. Create an internal ELB

Correct Answer(s): 2

Explanation:

A VPC peering connection helps you to facilitate the transfer of data. For example, if you have more than one AWS account, you can peer the VPCs across those accounts to create a file sharing network. You can also use a VPC peering connection to allow other VPCs to access resources you have in one of your VPCs.

CORRECT: "Create a VPC peering connection" is the correct answer.

INCORRECT: "Create an internal ELB" is incorrect. An internal ELB will not help you to transfer data between accounts.

INCORRECT: "Create a subnet peering connection" is incorrect. You cannot peer subnets.

INCORRECT: "Configure matching CIDR address ranges" is incorrect. Configuring matching CIDR address ranges will not mean you can route between accounts. Also, you cannot peer with an account with a matching (or overlapping) address range.

References:

<https://docs.aws.amazon.com/vpc/latest/peering/what-is-vpc-peering.html>

Question 6:

Your company has recently migrated to AWS. How can your CTO monitor the organization's costs?

1. AWS CloudTrail
2. AWS Simple Monthly calculator
3. AWS Consolidated Billing
4. AWS Cost Explorer

Correct Answer(s): 4

Explanation:

AWS Cost Explorer – enables you to visualize your usage patterns over time and to identify your underlying cost drivers.

CORRECT: "AWS Cost Explorer" is the correct answer.

INCORRECT: "AWS CloudTrail" is incorrect. AWS CloudTrail provides a record of API activity in your account. I.e. who did what to which resource..

INCORRECT: "AWS Consolidated Billing" is incorrect. AWS Consolidated Billing is a feature of AWS Organizations that allows you to consolidate billing across multiple linked accounts and benefit from volume pricing discounts.

INCORRECT: "AWS Simple Monthly calculator" is incorrect. AWS Simple Monthly calculator – shows you how much you would pay in AWS if you move your resources.

References:

<https://aws.amazon.com/aws-cost-management/aws-cost-explorer/>

Question 7:

How can a company configure automatic, asynchronous copying of objects in Amazon S3 buckets across regions?

1. By configuring multi-master replication
2. Using lifecycle actions
3. Using cross-region replication
4. This is done by default by AWS

Correct Answer(s): 3

Explanation:

Cross-region replication (CRR) enables automatic, asynchronous copying of objects across buckets in different AWS Regions. Buckets configured for cross-region replication can be owned by the same AWS account or by different account

CORRECT: "Using cross-region replication" is the correct answer.

INCORRECT: "This is done by default by AWS" is incorrect as this is not true.

INCORRECT: "By configuring multi-master replication" is incorrect. Multi-master replication is not something you can do with Amazon S3 (Amazon Aurora has this feature).

INCORRECT: "Using lifecycle actions" is incorrect. Lifecycle actions cannot be configured to move to another storage class in a different region.

References:

<https://docs.aws.amazon.com/AmazonS3/latest/dev/crr.html>

Question 8:

Which AWS technology enables you to group resources that share one or more tags?

1. Consolidation groups
2. Organization groups
3. Resource groups
4. Tag groups

Correct Answer(s): 3

Explanation:

You can use resource groups to organize your AWS resources. Resource groups make it easier to manage and automate tasks on large numbers of resources at one time.

Resource groups make it easy to group resources using the tags that are assigned to them. You can group resources that share one or more tags.

CORRECT: "Resource groups" is the correct answer.

INCORRECT: "Tag groups" is incorrect as this is not a feature.

INCORRECT: "Organization groups" is incorrect as this is not a feature.

INCORRECT: "Consolidation groups" is incorrect as this is not a feature.

References:

<https://docs.aws.amazon.com/ARG/latest/userguide/welcome.html>

Question 9:

Which type of AWS database is ideally suited to analytics using SQL queries?

1. Amazon S3
2. Amazon RDS
3. Amazon DynamoDB
4. Amazon RedShift

Correct Answer(s): 4

Explanation:

Amazon Redshift is a fast, fully managed data warehouse that makes it simple and cost-effective to analyze all your data using standard SQL and existing Business Intelligence (BI) tools. RedShift is a SQL based data warehouse used for analytics applications.

CORRECT: "Amazon RedShift" is the correct answer.

INCORRECT: "Amazon DynamoDB" is incorrect. Amazon DynamoDB is a NoSQL type of database and is not suited to analytics using SQL queries.

INCORRECT: "Amazon RDS" is incorrect. Amazon RDS is a transactional DB, not an analytics DB.

INCORRECT: "Amazon S3" is incorrect. Amazon S3 is an object storage solution not a database.

References:

<https://aws.amazon.com/redshift/>

Question 10:

Which of the following is NOT a best practice for protecting the root user of an AWS account?

1. Lock away the AWS root user access keys
2. Enable MFA

3. Remove administrative permissions
4. Don't share the root user credentials

Correct Answer(s): 3

Explanation:

You cannot remove administrative permissions from the root user of an AWS account. Therefore, you must protect the account through creating a complex password, enabling MFA, locking away access keys (assuming they're even required), and not sharing the account details.

CORRECT: "Remove administrative permissions" is the correct answer.

INCORRECT: "Don't share the root user credentials" is incorrect as this is a best practice.

INCORRECT: "Enable MFA" is incorrect as this is a best practice.

INCORRECT: "Lock away the AWS root user access keys" is incorrect as this is a best practice.

References:

<https://docs.aws.amazon.com/IAM/latest/UserGuide/best-practices.html>

Question 11:

Which AWS service or feature helps restrict the AWS service, resources, and individual API actions the users and roles in each member account can access?

1. AWS Organizations
2. Amazon Cognito
3. AWS Firewall Manager
4. AWS Shield

Correct Answer(s): 1

Explanation:

AWS Organizations offers the following policy types:

Service control policies (SCPs) offer central control over the maximum available permissions for all of the accounts in your organization.

Tag policies help you standardize tags across resources in your organization's accounts.

SCPs are used to restrict access within member accounts. For instance you can create an SCP that restricts a specific API action such as deploying a particular Amazon EC2 instance type. The policy would then prevent anyone, including administrators, from being able to launch EC2 instances using that instance type.

CORRECT: "AWS Organizations" is the correct answer.

INCORRECT: "Amazon Cognito" is incorrect as this service is used for providing sign-in and sign-up services for mobile applications.

INCORRECT: "AWS Shield" is incorrect as this is a security service for protecting against DDoS attacks.

INCORRECT: "AWS Firewall Manager" is incorrect as this service is used for managing various security services within AWS.

References:

https://docs.aws.amazon.com/organizations/latest/userguide/orgs_manage_policies_scp.html

Question 12:

What is the easiest way to store a backup of an EBS volume on Amazon S3?

1. Write a custom script to copy the data into a bucket
2. Use S3 lifecycle actions to backup the volume
3. Create a snapshot of the volume
4. Use Amazon Kinesis to process the data and store the results in S3

Correct Answer(s): 3

Explanation:

You can back up the data on your Amazon EBS volumes to Amazon S3 by taking point-in-time snapshots. Snapshots are incremental backups, which

means that only the blocks on the device that have changed after your most recent snapshot are saved.

CORRECT: "Create a snapshot of the volume" is the correct answer.

INCORRECT: "Write a custom script to copy the data into a bucket" is incorrect. Writing a custom script could work but would not be the easiest method.

INCORRECT: "Use S3 lifecycle actions to backup the volume" is incorrect. You cannot apply S3 lifecycle actions to EBS volumes.

INCORRECT: "Use Amazon Kinesis to process the data and store the results in S3" is incorrect. Amazon Kinesis is used for processing streaming data, not data in EBS volumes.

References:

<https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/EBSSnapshots.html>

Question 13:

Under the AWS shared responsibility model, which of the following are customer responsibilities? (Select TWO.)

1. Physical security of data center facilities
2. Network and firewall configurations
3. Setting up server-side encryption on an Amazon S3 bucket
4. Amazon RDS instance patching
5. Compute capacity availability

Correct Answer(s): 2, 3

Explanation:

As a customer on AWS you take responsibility for encrypting data. This includes encrypting data at rest and data in transit. Another security responsibility the customer owns is setting network and firewall configurations. For instance, you must configure Network ACLs and Security Groups, and any operating system-level firewalls on your EC2 instances.

CORRECT: "Setting up server-side encryption on an Amazon S3 bucket" is a correct answer.

CORRECT: "Network and firewall configurations" is also a correct answer.

INCORRECT: "Amazon RDS instance patching" is incorrect. With RDS you can define the maintenance window but AWS actually perform the patching for you.

INCORRECT: "Physical security of data center facilities" is incorrect as this is security of the cloud and is an AWS responsibility.

INCORRECT: "Compute capacity availability" is incorrect as this is an AWS responsibility.

References:

<https://aws.amazon.com/compliance/shared-responsibility-model/>

Question 14:

Your manager has asked you to explain some of the security features available in the AWS cloud. How can you describe the function of Amazon CloudHSM?

1. It is a firewall for use with web applications
2. It is a Public Key Infrastructure (PKI)
3. It provides server-side encryption for S3 objects
4. It can be used to generate, use and manage encryption keys in the cloud

Correct Answer(s): 4

Explanation:

AWS CloudHSM is a cloud-based hardware security module (HSM) that allows you to easily add secure key storage and high-performance crypto operations to your AWS applications.

CloudHSM has no upfront costs and provides the ability to start and stop HSMs on-demand, allowing you to provision capacity when and where it is needed quickly and cost-effectively.

CloudHSM is a managed service that automates time-consuming administrative tasks, such as hardware provisioning, software patching, high availability, and backups.

CORRECT: "It can be used to generate, use and manage encryption keys in the cloud" is the correct answer.

INCORRECT: "It provides server-side encryption for S3 objects" is incorrect. CloudHSM performs key management but it does not perform encryption of S3 objects.

INCORRECT: "It is a Public Key Infrastructure (PKI)" is incorrect. It can be used to generate asymmetric keys, however it is not a PKI.

INCORRECT: "It is a firewall for use with web applications" is incorrect as it does not provide any firewall functionality.

References:

<https://aws.amazon.com/cloudhsm/details/>

Question 15:

Which AWS service provides the ability to detect inadvertent data leaks of personally identifiable information (PII) and user credential data?

1. Amazon Inspector
2. Amazon GuardDuty
3. AWS Shield
4. Amazon Macie

Correct Answer(s): 4

Explanation:

Amazon Macie is a fully managed data security and data privacy service that uses machine learning and pattern matching to discover and protect your sensitive data in Amazon S3.

Macie applies machine learning and pattern matching techniques to the Amazon S3 buckets you select to identify and alert you to sensitive data, such as personally identifiable information (PII).

CORRECT: "Amazon Macie" is the correct answer.

INCORRECT: "Amazon GuardDuty" is incorrect. This is a service that analyzes your resources using anomaly detection and machine learning. It does not detect personally identifiable information.

INCORRECT: "Amazon Inspector" is incorrect. Amazon Inspector automatically assesses applications for exposure, vulnerabilities, and deviations from best practices. It does not detect personally identifiable information.

INCORRECT: "AWS Shield" is incorrect. This service is involved with protecting your resources of distributed denial of service (DDoS) attacks.

References:

<https://aws.amazon.com/macie/>

Question 16:

Which of the statements below does NOT characterize cloud computing?

1. With cloud computing you can increase your speed and agility
2. Cloud computing is the on-demand delivery of compute power
3. With cloud computing you get to benefit from massive economies of scale
4. Cloud computing allows you to swap variable expense for capital expense

Correct Answer(s): 4

Explanation:

Cloud computing is not a one-off capital expense, it is an ongoing operating expense. The caveat to this is that if you purchase reserved capacity you have an option to partially or fully pay upfront. However, it is still an operating cost as you do not own and depreciate the assets.

CORRECT: "Cloud computing allows you to swap variable expense for capital expense" is the correct answer.

INCORRECT: "Cloud computing is the on-demand delivery of compute power" is incorrect as this is a valid statement.

INCORRECT: "With cloud computing you get to benefit from massive economies of scale" is incorrect as this is a valid statement.

INCORRECT: "With cloud computing you can increase your speed and agility" is incorrect as this is a valid statement.

References:

<https://docs.aws.amazon.com/whitepapers/latest/aws-overview/six-advantages-of-cloud-computing.html>

Question 17:

Where are Amazon EBS snapshots stored?

1. On an Amazon EBS instance store
2. On Amazon S3
3. Within the EBS block store
4. On an Amazon EFS filesystem

Correct Answer(s): 2

Explanation:

You can back up the data on your Amazon EBS volumes to Amazon S3 by taking point-in-time snapshots. Snapshots are incremental backups, which means that only the blocks on the device that have changed after your most recent snapshot are saved.

CORRECT: "On Amazon S3" is the correct answer.

INCORRECT: "On an Amazon EBS instance store" is incorrect as explained above.

INCORRECT: "On an Amazon EFS filesystem" is incorrect as explained above.

INCORRECT: "Within the EBS block store" is incorrect as explained above.

References:

<https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/EBSSnapshots.html>

Question 18:

To reduce cost, which of the following services support reservations? (choose 2)

1. Amazon S3
2. Amazon CloudFormation
3. AWS Elastic Beanstalk
4. Amazon RedShift
5. Amazon ElastiCache

Correct Answer(s): 4, 5

Explanation:

Amazon ElastiCache and Amazon Redshift both support reserved nodes. Reservations can be used to gain a large discount from the on-demand rate in exchange for the commitment to a contract for 1 or 3 years.

CORRECT: "Amazon ElastiCache" is a correct answer.

CORRECT: "Amazon RedShift" is also a correct answer.

INCORRECT: "Amazon CloudFormation" is incorrect as you do not pay for CloudFormation.

INCORRECT: "AWS Elastic Beanstalk" is incorrect as you do not pay for Elastic Beanstalk.

INCORRECT: "Amazon S3" is incorrect as you pay for usage and cannot reserve capacity.

References:

https://d1.awsstatic.com/whitepapers/aws_pricing_overview.pdf

Question 19:

You are evaluating AWS services that can assist with creating scalable application environments. Which of the statements below best describes the

Elastic Load Balancer service?

1. A network service that provides an alternative to using the Internet to connect customers' on-premise sites to AWS
2. Automatically distributes incoming application traffic across multiple targets, such as Amazon EC2 instances, containers, and IP addresses
3. Helps you ensure that you have the correct number of Amazon EC2 instances available to handle the load for your application
4. A highly available and scalable Domain Name System (DNS) service

Correct Answer(s): 2

Explanation:

Elastic Load Balancing automatically distributes incoming application traffic across multiple targets, such as Amazon EC2 instances, containers, and IP addresses.

Elastic Load Balancing provides fault tolerance for applications by automatically balancing traffic across targets – Amazon EC2 instances, containers and IP addresses – and Availability Zones while ensuring only healthy targets receive traffic.

CORRECT: "Automatically distributes incoming application traffic across multiple targets, such as Amazon EC2 instances, containers, and IP addresses" is the correct answer.

INCORRECT: "Helps you ensure that you have the correct number of Amazon EC2 instances available to handle the load for your application" is incorrect as this describes EC2 Auto Scaling.

INCORRECT: "A highly available and scalable Domain Name System (DNS) service" is incorrect as this describes Amazon Route 53.

INCORRECT: "A network service that provides an alternative to using the Internet to connect customers' on-premise sites to AWS" is incorrect as this describes AWS Direct Connect.

References:

<https://aws.amazon.com/elasticloadbalancing/>

Question 20:

Which AWS Glacier data access option retrieves data from an archive in 1-5 minutes?

1. Standard
2. Express
3. Expedited
4. Accelerated

Correct Answer(s): 3

Explanation:

Expedited retrievals allow you to quickly access your data when occasional urgent requests for a subset of archives are required. For all but the largest archives (250 MB+), data accessed using Expedited retrievals are typically made available within 1–5 minutes.

CORRECT: "Expedited" is the correct answer.

INCORRECT: "Standard" is incorrect. Standard takes 3-5 hours.

INCORRECT: "Express" is incorrect as this is not a retrieval option.

INCORRECT: "Accelerated" is incorrect as this is not a retrieval option.

References:

<https://docs.aws.amazon.com/amazonglacier/latest/dev/downloading-an-archive-two-steps.html>

Question 21:

What type of cloud computing service type do AWS Elastic Beanstalk and Amazon RDS correspond to?

1. IaaS
2. SaaS
3. PaaS
4. Hybrid

Correct Answer(s): 3

Explanation:

Both Elastic Beanstalk and RDS are services that are managed at the platform level meaning you don't need to manage the infrastructure level yourself. Therefore, tasks like OS management and patching are performed for you.

CORRECT: "PaaS" is the correct answer.

INCORRECT: "IaaS" is incorrect. IaaS is a model where the underlying hardware platform and hypervisor are managed for you and you are delivered tools and interfaces for working with operating system instances.

INCORRECT: "SaaS" is incorrect. SaaS is a model where the whole stack is managed for you right up to the application and you are delivered working software that you can customize and populate with data.

INCORRECT: "Hybrid" is incorrect. Hybrid is a type of cloud delivery model in which you consume both public and private cloud and connect the two together.

References:

<https://aws.amazon.com/types-of-cloud-computing/>

Question 22:

According to the AWS Well-Architected Framework, what change management steps should be taken to achieve reliability in the AWS Cloud? (Select TWO.)

1. Use service limits to prevent users from creating or making changes to AWS resources
2. Use AWS CloudTrail to record AWS API calls into an auditable log file
3. Use AWS Certificate Manager to create a catalog of approved services
4. Use Amazon GuardDuty to record API activity to an S3 bucket
5. Use AWS Config to generate an inventory of AWS resources

Correct Answer(s): 2, 5

Explanation:

AWS Config can be used to track the configuration state of your resources and how the state has changed over time. With CloudTrail you can audit who made what API calls on what resources at what time. This can help with identifying changes that cause reliability issues.

CORRECT: "Use AWS Config to generate an inventory of AWS resources" is the correct answer.

CORRECT: "Use AWS CloudTrail to record AWS API calls into an auditable log file" is the correct answer.

INCORRECT: "Use service limits to prevent users from creating or making changes to AWS resources" is incorrect. Service limits result in a maximum limit for launching resources, but you can still make changes to existing resources (so long as you don't exceed the limit).

INCORRECT: "Use AWS Certificate Manager to create a catalog of approved services" is incorrect. Certificate manager is used for issuing and managing SSL/TLS certificates, it does not maintain a catalog of approved services.

INCORRECT: "Use Amazon GuardDuty to record API activity to an S3 bucket" is incorrect. GuardDuty does not record API activity to an S3 bucket.

References:

<https://d1.awsstatic.com/whitepapers/architecture/AWS-Reliability-Pillar.pdf>

Question 23:

What methods are available for scaling an Amazon RDS database? (choose 2)

1. You can scale up by increasing storage capacity
2. You can scale up automatically using AWS Auto Scaling
3. You can scale out by implementing Elastic Load Balancing
4. You can scale out automatically with EC2 Auto Scaling

5. You can scale up by moving to a larger instance size

Correct Answer(s): 1, 5

Explanation:

To handle a higher load in your database, you can vertically scale up your master database with a simple push of a button. There are currently over 18 instance sizes that you can choose from when resizing your RDS MySQL, PostgreSQL, MariaDB, Oracle, or Microsoft SQL Server instance.

For Amazon Aurora, you have 5 memory-optimized instance sizes to choose from. The wide selection of instance types allows you to choose the best resource and cost for your database server.

In addition to scaling your master database vertically, you can also improve the performance of a read-heavy database by using read replicas to horizontally scale your database. RDS MySQL, PostgreSQL, and MariaDB can have up to 5 read replicas, and Amazon Aurora can have up to 15 read replicas.

CORRECT: "You can scale up by moving to a larger instance size" is a correct answer.

CORRECT: "You can scale up by increasing storage capacity" is also a correct answer.

INCORRECT: "You can scale out automatically with EC2 Auto Scaling" is incorrect \$

INCORRECT: "You can scale out by implementing Elastic Load Balancing" is incorrect. You cannot use Elastic Load Balancing with RDS.

INCORRECT: "You can scale up automatically using AWS Auto Scaling" is incorrect. You cannot use EC2 Auto Scaling or AWS (Application) Auto Scaling to automatically scale your RDS database. EC2 Auto Scaling is involved with launching additional instances (scale out) and this is not a method of scaling an RDS database. Application auto scaling is involved with automatically adjusting the assignment of resources to the database which is not supported with RDS (you can do it with DynamoDB).

References:

<https://aws.amazon.com/blogs/database/scaling-your-amazon-rds-instance-vertically-and-horizontally/>

Question 24:

Which HTTP code indicates a successful upload of an object to Amazon S3

1. 200
2. 500
3. 400
4. 300

Correct Answer(s): 1

Explanation:

HTTP response status codes indicate whether a specific HTTP request has been successfully completed.

- A HTTP 200 codes indicates a successful upload.
- A HTTP 300 code indicates a redirection.
- A HTTP 400 code indicates a client error.
- A HTTP 500 code indicates a server error.

CORRECT: "200" is the correct answer.

INCORRECT: "300" is incorrect as explained above.

INCORRECT: "400" is incorrect as explained above.

INCORRECT: "500" is incorrect as explained above.

References:

https://en.wikipedia.org/wiki/List_of_HTTP_status_codes

Question 25:

Which AWS support plans provide 24x7 access to customer service?

1. Basic
2. All plans
3. Developer

4. Business

Correct Answer(s): 2

Explanation:

All support plans provide 24×7 access to customer service, documentation, whitepapers, and support forums.

CORRECT: "All plans" is the correct answer.

INCORRECT: "Basic" is incorrect as explained above.

INCORRECT: "Business" is incorrect as explained above.

INCORRECT: "Developer" is incorrect as explained above.

References:

<https://aws.amazon.com/premiumsupport/plans/>

Question 26:

What are the advantages of running a database service such as Amazon RDS in the cloud versus deploying on-premise? (choose 2)

1. There are no costs for replicating data between DBs in different data centers or regions
2. High availability is easier to implement due to built-in functionality for deploying read replicas and multi-AZ
3. You can use any database software you like, allowing greater flexibility
4. You have full control of the operating system and can install your own operational tools
5. Scalability is improved as it is quicker to implement and there is an abundance of capacity

Correct Answer(s): 2, 5

Explanation:

The advantages of using Amazon RDS include being able to easily scale by increasing your instance type without having to go through a long procurement cycle for getting new hardware or worrying about whether capacity exists on your existing private cloud infrastructure. You can also implement fault tolerance and scalability features through multi-AZ and read replicas easily

With Amazon RDS you do not have control of the operating system and you cannot use any database software you like as you are restricted to a list of several engines. There are costs for replicating data between AZs and regions so this must be taken into account in any cost analysis.

CORRECT: "Scalability is improved as it is quicker to implement and there is an abundance of capacity" is a correct answer.

CORRECT: "High availability is easier to implement due to built-in functionality for deploying read replicas and multi-AZ" is also a correct answer.

INCORRECT: "You have full control of the operating system and can install your own operational tools" is incorrect as explained above.

INCORRECT: "You can use any database software you like, allowing greater flexibility" is incorrect as explained above.

INCORRECT: "There are no costs for replicating data between DBs in different data centers or regions" is incorrect as explained above.

References:

<https://aws.amazon.com/rds/>

Question 27:

What is the name for the top-level container used to hold objects within Amazon S3?

1. Instance Store
2. Bucket
3. Directory
4. Folder

Correct Answer(s): 2

Explanation:

Amazon S3 is an object-based storage system. You upload your objects into buckets.

CORRECT: "Bucket" is the correct answer.

INCORRECT: "Folder" is incorrect. Though S3 is a flat structure (not hierarchical), folders can be used for grouping objects. However, this is not the top-level container.

INCORRECT: "Directory" is incorrect. Directories are usually associated with filesystems rather than object-based storage systems.

INCORRECT: "Instance Store" is incorrect. An Instance Store is a type of ephemeral block-based storage service available to EC2 instances.

References:

<https://docs.aws.amazon.com/AmazonS3/latest/dev/UsingBucket.html#create-bucket-intro>

<https://docs.aws.amazon.com/AmazonS3/latest/user-guide/using-folders.html>

Question 28:

Which type of scaling does Amazon EC2 Auto Scaling provide?

1. Vertical
2. Incremental
3. Horizontal
4. Linear

Correct Answer(s): 3

Explanation:

Amazon EC2 Auto Scaling scales horizontally by adding launching and terminating EC2 instances based on actual demand for your application.

CORRECT: "Horizontal" is the correct answer.

INCORRECT: "Vertical" is incorrect as EC2 auto scaling scales horizontally.

INCORRECT: "Linear" is incorrect as this is not the way Auto Scaling works.

INCORRECT: "Incremental" is incorrect as this is not the way Auto Scaling works.

References:

<https://aws.amazon.com/ec2/autoscaling/>

Question 29:

A Cloud Practitioner is creating the business process workflows associated with an order fulfilment system. Which AWS service can assist with coordinating tasks across distributed application components?

1. Amazon SQS
2. AWS STS
3. Amazon SWF
4. Amazon SNS

Correct Answer(s): 3

Explanation:

Amazon Simple Workflow Service (SWF) is a web service that makes it easy to coordinate work across distributed application components. SWF enables applications for a range of use cases, including media processing, web application back-ends, business process workflows, and analytics pipelines, to be designed as a coordination of tasks.

CORRECT: "Amazon SWF" is the correct answer.

INCORRECT: "AWS STS" is incorrect. AWS Security Token Service (STS) is used for requesting temporary credentials..

INCORRECT: "Amazon SQS" is incorrect. Amazon Simple Queue Service (SQS) is a message queue used for decoupling application components.

INCORRECT: "Amazon SNS" is incorrect. Amazon Simple Notification Service (SNS) is a web service that makes it easy to set up, operate, and send

notifications from the cloud. SNS supports notifications over multiple transports including HTTP/HTTPS, Email/Email-JSON, SQS and SMS.

References:

<https://aws.amazon.com/swf/>

Question 30:

What is an example of scaling vertically?

1. AWS Auto Scaling adding more EC2 instances
2. AWS Lambda adding concurrently executing functions
3. Increasing the instance size with Amazon RDS
4. Adding read replicas to an Amazon RDS database

Correct Answer(s): 3

Explanation:

A good example of vertical scaling is changing the instance size of an EC2 instance or RDS database to one with more CPU and RAM.

All of the other options are examples of scaling horizontally.

CORRECT: "Increasing the instance size with Amazon RDS" is the correct answer.

INCORRECT: "AWS Auto Scaling adding more EC2 instances" is incorrect as explained above.

INCORRECT: "AWS Lambda adding concurrently executing functions" is incorrect as explained above.

INCORRECT: "Adding read replicas to an Amazon RDS database" is incorrect as explained above.

References:

<https://aws.amazon.com/blogs/database/scaling-your-amazon-rds-instance-vertically-and-horizontally/>

Question 31:

Under the shared responsibility model, which of the following tasks are the responsibility of the AWS customer? (Select TWO.)

1. Ensuring that application data is encrypted at rest
2. Ensuring that AWS NTP servers are set to the correct time
3. Ensuring that users have received security training in the use of AWS services
4. Ensuring that access to data centers is restricted
5. Ensuring that hardware is disposed of properly

Correct Answer(s): 1, 3

Explanation:

As a customer on AWS you take responsibility for encrypting data. This includes encrypting data at rest and data in transit. It's also a customer's responsibility to properly train their staff in security best practices and procedures for the AWS services they use.

CORRECT: "Ensuring that application data is encrypted at rest" is a correct answer.

CORRECT: "Ensuring that users have received security training in the use of AWS services" is also a correct answer.

INCORRECT: "Ensuring that AWS NTP servers are set to the correct time" is incorrect. Network Time Protocol (NTP) servers are an AWS responsibility.

INCORRECT: "Ensuring that access to data centers is restricted" is incorrect as this is security of the cloud and is an AWS responsibility.

INCORRECT: "Ensuring that hardware is disposed of properly" is incorrect as this is an AWS responsibility.

References:

<https://aws.amazon.com/compliance/shared-responsibility-model/>

Question 32:

How can you deploy your EC2 instances so that if a single data center fails you still have instances available?

1. Across VPCs
2. Across Availability Zones
3. Across regions
4. Across subnets

Correct Answer(s): 2

Explanation:

An AZ spans one or more data centers and each AZ is physically isolated from other AZs and connected by high speed networking. If you want to deploy a highly available application you should spread your instances across AZs and they will be resilient to the failure of a single DC

CORRECT: "Across Availability Zones" is the correct answer.

INCORRECT: "Across regions" is incorrect. You could deploy your instances across separate regions but this is not necessary to create a highly available application and introduces complexity and cost. For example you may need multiple ELBs (one per region), complex name resolution and potential data transfer charges.

INCORRECT: "Across subnets" is incorrect. Subnets are created within AZs. Therefore, if you deploy resources into multiple subnets within an AZ and a data center fails, you may lose all of your instances.

INCORRECT: "Across VPCs" is incorrect. You should deploy across AZs within a VPC.

References:

<https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/using-regions-availability-zones.html>

Question 33:

Which service allows you to monitor and troubleshoot systems using system and application log files generated by those systems?

1. CloudTrail Metrics
2. CloudWatch Metrics
3. CloudTrail Logs
4. CloudWatch Logs

Correct Answer(s): 4

Explanation:

Amazon CloudWatch Logs lets you monitor and troubleshoot your systems and applications using your existing system, application and custom log files. CloudWatch Logs can be used for real time application and system monitoring as well as long term log retention.

CORRECT: "CloudWatch Logs" is the correct answer.

INCORRECT: "CloudTrail Logs" is incorrect. CloudTrail is used for logging who does what in AWS by recording API calls. It is used for auditing, not performance or system operational monitoring.

INCORRECT: "CloudWatch Metrics" is incorrect. CloudWatch metrics are the standard method by which CloudWatch collects data

INCORRECT: "CloudTrail Metrics" is incorrect. CloudTrail does not record metrics, it records logs.

References:

<https://aws.amazon.com/cloudtrail/>

Question 34:

How can a systems administrator specify a script to be run on an EC2 instance during launch?

1. User Data
2. AWS Config
3. Run Command
4. Metadata

Correct Answer(s): 1

Explanation:

When you launch an instance in Amazon EC2, you have the option of passing user data to the instance that can be used to perform common automated configuration tasks and even run scripts after the instance starts.

You can pass two types of user data to Amazon EC2: shell scripts and cloud-init directives. User data is data that is supplied by the user at instance launch in the form of a script. User data is limited to 16KB. User data and meta data are not encrypted.

CORRECT: "User Data" is the correct answer.

INCORRECT: "Metadata" is incorrect as metadata retrieves information about the instance.

INCORRECT: "Run Command" is incorrect as this operates separately to the launch process.

INCORRECT: "AWS Config" is incorrect as this service stores configuration information relating to AWS services.

References:

<https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/user-data.html>

Question 35:

Which of the following are pillars from the five pillars of the AWS Well-Architected Framework? (choose 2)

1. Confidentiality
2. Resilience
3. Operational excellence
4. Performance efficiency
5. Economics

Correct Answer(s): 3, 4

Explanation:

The five pillars of the AWS Well-Architected Framework are operation excellence, security, reliability, performance efficiency, and cost

optimization

CORRECT: "Operational excellence" is a correct answer.

CORRECT: "Performance efficiency" is also a correct answer.

INCORRECT: "Resilience" is incorrect as this is not one of the five pillars.

INCORRECT: "Confidentiality" is incorrect as this is not one of the five pillars.

INCORRECT: "Economics" is incorrect as this is not one of the five pillars.

References:

<https://aws.amazon.com/blogs/apn/the-5-pillars-of-the-aws-well-architected-framework/>

Question 36:

Based on the shared responsibility model, which of the following security and compliance tasks is AWS responsible for?

1. Encrypting data in transit
2. Updating Amazon EC2 host firmware
3. Updating operating systems
4. Granting access to individuals and services

Correct Answer(s): 2

Explanation:

AWS are responsible for updating Amazon EC2 host firmware. This is considered "security of the cloud". All other tasks are the responsibility of the customer.

CORRECT: "Updating Amazon EC2 host firmware" is the correct answer.

INCORRECT: "Granting access to individuals and services" is incorrect. This is something a customer must perform to control access to the resources they use on AWS.

INCORRECT: "Encrypting data in transit" is incorrect. Encryption at rest and in-transit is a customer responsibility.

INCORRECT: "Updating operating systems" is incorrect. Customers are responsible for patching operating systems on Amazon EC2. AWS are only responsible for the host servers.

References:

<https://aws.amazon.com/compliance/shared-responsibility-model/>

Question 37:

A web application running on AWS has been received malicious requests from the same set of IP addresses.

Which AWS service can help secure the application and block the malicious traffic?

1. AWS WAF
2. AWS IAM
3. Amazon GuardDuty
4. Amazon SNS

Correct Answer(s): 1

Explanation:

The AWS Web Application Firewall (WAF) is used to protect web applications or APIs against common web exploits. Rules can be created that block traffic based on source IP address.

CORRECT: "AWS WAF" is the correct answer.

INCORRECT: "AWS IAM" is incorrect. The Identity and Access Management service is used for creating users, groups, roles and policies. It is not used for controlling network access.

INCORRECT: "Amazon GuardDuty" is incorrect. This is a service that analyzes your resources using anomaly detection and machine learning. It can alert and trigger other tools to take action but it is not a network firewall service.

INCORRECT: "Amazon SNS" is incorrect as this service is used for sending notifications using a publisher/subscriber model.

References:

<https://aws.amazon.com/waf/>

Question 38:

Your organization has offices around the world and some employees travel between offices. How should their accounts be setup?

1. Set the user account as a “global” account when created
2. Enable MFA for the accounts
3. IAM is a global service, just create the users in one place
4. Create a separate account in IAM within each region in which they will travel

Correct Answer(s): 3**Explanation:**

IAM is a global service and all users that are created are able to login to the AWS Management Console from any location.

CORRECT: "IAM is a global service, just create the users in one place" is the correct answer.

INCORRECT: "Create a separate account in IAM within each region in which they will travel" is incorrect. You do not create separate IAM accounts in different regions as IAM is a global service.

INCORRECT: "Set the user account as a “global” account when created" is incorrect. There is no such thing as setting the account as “global”.

INCORRECT: "Enable MFA for the accounts" is incorrect. Enabling multi-factor authentication is a good security practice but not necessary to enable users to travel to different locations.

References:

https://docs.aws.amazon.com/IAM/latest/UserGuide/introduction_identity-management.html

Question 39:

How can a database administrator reduce operational overhead for a MySQL database?

1. Migrate the database onto AWS Lambda
2. Use AWS CloudFormation to manage operations
3. Migrate the database onto an EC2 instance
4. Migrate the database onto an Amazon RDS instance

Correct Answer(s): 4

Explanation:

Amazon RDS is a managed database service that supports MySQL. The DBA can reduce operational overhead by moving to RDS and having less work to do to manage the database.

CORRECT: "Migrate the database onto an Amazon RDS instance" is the correct answer.

INCORRECT: "Migrate the database onto an EC2 instance" is incorrect. Migrating onto an EC2 instance will not reduce operational overhead as the DBA will still need to manage both the operating system and the database.

INCORRECT: "Migrate the database onto AWS Lambda" is incorrect. AWS Lambda provides functions as a service. It therefore a compute service, not a database service and cannot be used to run a MySQL database.

INCORRECT: "Use AWS CloudFormation to manage operations" is incorrect. AWS CloudFormation is used for automating the deployment of infrastructure on AWS, not for automating operations.

References:

<https://aws.amazon.com/rds/>

Question 40:

Which pricing model will interrupt a running Amazon EC2 instance if capacity becomes temporarily unavailable?

1. On-Demand Instances
2. Standard Reserved Instances

3. Spot Instances
4. Convertible Reserved Instances

Correct Answer(s): 3

Explanation:

Amazon EC2 Spot Instances let you take advantage of unused EC2 capacity in the AWS cloud. Spot Instances are available at up to a 90% discount compared to On-Demand prices. When AWS need to reclaim the capacity you get a 2 minute warning and then your instances are terminated.

With all other pricing models your instances will not be terminated by AWS once they are running.

CORRECT: "Spot Instances" is the correct answer.

INCORRECT: "On-Demand Instances" is incorrect as explained above.

INCORRECT: "Standard Reserved Instances" is incorrect as explained above.

INCORRECT: "Convertible Reserved Instances" is incorrect as explained above.

References:

<https://aws.amazon.com/ec2/spot/>

Question 41:

What is the most efficient way to establish network connectivity from on-premises to multiple VPCs in different AWS Regions?

1. Use AWS VPN
2. Use AWS Client VPN
3. Use an AWS Transit Gateway
4. Use AWS Direct Connect

Correct Answer(s): 3

Explanation:

AWS Transit Gateway is a service that enables customers to connect their Amazon Virtual Private Clouds (VPCs) and their on-premises networks to a single gateway.

With AWS Transit Gateway, you only have to create and manage a single connection from the central gateway in to each Amazon VPC, on-premises data center, or remote office across your network. Transit Gateway acts as a hub that controls how traffic is routed among all the connected networks which act like spokes.

CORRECT: "Use an AWS Transit Gateway" is the correct answer.

INCORRECT: "Use AWS Direct Connect" is incorrect as this only connects you to a single Amazon VPC, not multiple VPCs in different Regions.

INCORRECT: "Use AWS VPN" is incorrect as this is a point-to-point connection between an on-premises location and a single Amazon VPC.

INCORRECT: "Use AWS Client VPN" is incorrect as this service allows end users to connect to AWS using a VPN client.

References:

<https://aws.amazon.com/transit-gateway/>

Question 42:

In which ways does AWS' pricing model benefit organizations?

1. Focus spend on capital expenditure, rather than operational expenditure
2. Reduce the cost of maintaining idle resources
3. Reduces the people cost of application development
4. Eliminates licensing costs

Correct Answer(s): 2

Explanation:

Using AWS you can provision only what you need and adjust resources automatically and elastically. This reduces the amount of resources that are sitting idle which reduces cost.

CORRECT: "Reduce the cost of maintaining idle resources" is the correct answer.

INCORRECT: "Eliminates licensing costs" is incorrect. AWS does not eliminate licensing costs or application development costs as you still need to licence and develop your application.

INCORRECT: "Focus spend on capital expenditure, rather than operational expenditure" is incorrect. AWS allows you to focus your spend on operational costs, not capital costs.

INCORRECT: "Reduces the people cost of application development" is incorrect as you still need people to develop applications.

References:

<https://aws.amazon.com/pricing/>

Question 43:

Which AWS Cloud design principles can help increase reliability? (Select TWO.)

1. Testing recovery procedures
2. Adopting a consumption model
3. Automatically recovering from failure
4. Using monolithic architecture
5. Measuring overall efficiency

Correct Answer(s): 1, 3

Explanation:

Recovery procedures should always be tested ahead of any outage or disaster recovery situation. This is the only way to be sure your recovery procedures are effective.

When designing systems it is also a good practice to implement automatic recovery when possible. This reduces or eliminates the operational burden and potential downtime associated with a failure of a system or application component.

CORRECT: "Testing recovery procedures" is the correct answer.

CORRECT: "Automatically recovering from failure" is the correct answer.

INCORRECT: "Using monolithic architecture" is incorrect. A monolithic architecture means you have multiple components of an application running on a single system. This results in a bigger issue if that system fails. A distributed architecture is preferred.

INCORRECT: "Measuring overall efficiency" is incorrect. Efficiency has more of a bearing on cost management than reliability.

INCORRECT: "Adopting a consumption model" is incorrect. A consumption model has benefits more aligned with cost and agility than reliability.

References:

<https://aws.amazon.com/blogs/apn/the-5-pillars-of-the-aws-well-architected-framework/>

Question 44:

Which AWS service is suitable for an event-driven workload?

1. AWS Lambda
2. AWS Elastic Beanstalk
3. Amazon EC2
4. Amazon Lumberyard

Correct Answer(s): 1

Explanation:

AWS Lambda is an event-driven service. For example you can configure an Amazon S3 bucket with event notifications that trigger an AWS Lambda function when data is uploaded to an S3 bucket.

CORRECT: "AWS Lambda" is the correct answer.

INCORRECT: "Amazon EC2" is incorrect as this is not an event-driven service.

INCORRECT: "AWS Elastic Beanstalk" is incorrect as this is not an event-driven service.

INCORRECT: "Amazon Lumberyard" is incorrect as this is a game engine service.

References:

<https://docs.aws.amazon.com/lambda/latest/dg/with-s3.html>

Question 45:

What advantages does the AWS cloud provide in relation to cost? (choose 2)

1. Fine-grained billing
2. Itemized power costs
3. Ability to turn off resources and not pay for them
4. Enterprise licensing discounts
5. One-off payments for on-demand resources

Correct Answer(s): 1, 3

Explanation:

With the AWS cloud you get fine-grained billing and can turn off resources you are not using easily and not have to pay for them (pay for what you use model).

CORRECT: "Fine-grained billing" is a correct answer.

CORRECT: "Ability to turn off resources and not pay for them" is also a correct answer.

INCORRECT: "One-off payments for on-demand resources" is incorrect. You do not get the option for one-off payments for on-demand resources. You can for reserved instances which can be paid all upfront.

INCORRECT: "Enterprise licensing discounts" is incorrect. You do not get enterprise licensing discounts from AWS and you do not pay anything for power as the cost is built in.

INCORRECT: "Itemized power costs" is incorrect. You do not get any power costs on your bill

References:

<https://aws.amazon.com/ec2/pricing/>

Question 46:

Which of the following statements about AWS's pay-as-you-go pricing model is correct?

1. It requires payment up front for AWS services
2. It is relevant only for Amazon EC2, Amazon S3, and Amazon DynamoDB
3. It results in reduced capital expenditures
4. It reduces operational expenditures

Correct Answer(s): 3

Explanation:

The pay-as-you-go pricing model means you only pay for the services and consumption you actually use. You are charged for compute, storage and outbound data transfer. This model reduces capital expenditure as you pay a monthly bill (operational expenditure).

CORRECT: "It results in reduced capital expenditures" is the correct answer.

INCORRECT: "It requires payment up front for AWS services" is incorrect. You can pay upfront for some services such as EC2 reserved instances to get better pricing but most services are offered on a consumption basis.

INCORRECT: "It is relevant only for Amazon EC2, Amazon S3, and Amazon DynamoDB" is incorrect. This is not true most AWS services are offered on a pay-as-you-go pricing model.

INCORRECT: "It reduces operational expenditures" is incorrect. This is not true, it reduces capital expenditures.

References:

<https://aws.amazon.com/pricing/>

Question 47:

Which of the authentication options below can be used to authenticate using AWS APIs? (choose 2)

1. Server certificates
2. Access keys
3. Server passwords
4. Key pairs
5. Security groups

Correct Answer(s): 1, 2

Explanation:

Access keys are long-term credentials for an IAM user or the AWS account root user. You can use access keys to sign programmatic requests to the AWS CLI or AWS API (directly or using the AWS SDK).

Server certificates are SSL/TLS certificates that you can use to authenticate with some AWS services.

CORRECT: "Access keys" is a correct answer.

CORRECT: "Server certificates" is also a correct answer.

INCORRECT: "Key pairs" is incorrect. Key pairs are used for encrypting logon information when accessing EC2 instances.

INCORRECT: "Server passwords" is incorrect. A server password cannot be used to authenticate with an API.

INCORRECT: "Security groups" is incorrect. Security groups are an instance-level firewall used for controlling access to AWS resources.

References:

https://docs.aws.amazon.com/IAM/latest/UserGuide/id_credentials_access-keys.html

https://docs.aws.amazon.com/IAM/latest/UserGuide/id_credentials_server-certs.html

Question 48:

Which of the following are examples of horizontal scaling? (choose 2)

1. Requires a restart to scale up or down
2. Add more instances as demand increases
3. Automatic using services such as AWS Auto Scaling
4. Add more CPU/RAM to existing instances as demand increases
5. Scalability is limited by maximum instance size

Correct Answer(s): 2, 3

Explanation:

With horizontal scaling you add more instances to a fleet of instances to service demand as it increases. This can be achieved automatically by using AWS Auto Scaling to add instances in response to CloudWatch performance metrics.

With vertical scaling you are adding CPU, RAM or storage to an existing instance. This may involve modifying the instance type which typically requires a restart. With vertical scaling on AWS scalability is limited by the maximum instance size.

CORRECT: "Add more instances as demand increases" is a correct answer.

CORRECT: "Automatic using services such as AWS Auto Scaling" is also a correct answer.

INCORRECT: "Add more CPU/RAM to existing instances as demand increases" is incorrect as this is an example of vertical scaling.

INCORRECT: "Requires a restart to scale up or down" is incorrect as horizontal scaling does not require a restart of existing instances/applications.

INCORRECT: "Scalability is limited by maximum instance size" is incorrect as with horizontal scaling you add more instances.

References:

<https://aws.amazon.com/architecture/>

Question 49:

Which AWS security tool uses an agent installed in EC2 instances and assesses applications for vulnerabilities and deviations from best practices?

1. AWS Trusted Advisor
2. AWS Inspector
3. AWS Personal Health Dashboard
4. AWS TCO Calculator

Correct Answer(s): 2

Explanation:

Inspector is an automated security assessment service that helps improve the security and compliance of applications deployed on AWS. Inspector automatically assesses applications for vulnerabilities or deviations from best practices. Inspector uses an agent installed on EC2 instances.

CORRECT: "AWS Inspector" is the correct answer.

INCORRECT: "AWS Trusted Advisor" is incorrect. Trusted Advisor is an online resource that helps to reduce cost, increase performance and improve security by optimizing your AWS environment.

INCORRECT: "AWS Personal Health Dashboard" is incorrect. AWS Personal Health Dashboard provides alerts and remediation guidance when AWS is experiencing events that may impact you.

INCORRECT: "AWS TCO Calculator" is incorrect. The AWS TCO calculator can be used to compare the cost of running your applications in an on-premises or colocation environment to AWS.

References:

<https://aws.amazon.com/inspector/>

Question 50:

Which AWS service can serve a static website?

1. Amazon QuickSight
2. AWS X-Ray
3. Amazon Route 53

4. Amazon S3

Correct Answer(s): 4

Explanation:

You can use Amazon S3 to host a static website. On a static website, individual webpages include static content. They might also contain client-side scripts.

To host a static website on Amazon S3, you configure an Amazon S3 bucket for website hosting and then upload your website content to the bucket. When you configure a bucket as a static website, you must enable website hosting, set permissions, and create and add an index document. Depending on your website requirements, you can also configure redirects, web traffic logging, and a custom error document.

CORRECT: "Amazon S3" is the correct answer.

INCORRECT: "Amazon Route 53" is incorrect. This is an intelligent DNS service.

INCORRECT: "Amazon QuickSight" is incorrect. Amazon QuickSight is a fast, cloud-powered business intelligence service that makes it easy to deliver insights to everyone in your organization.

INCORRECT: "AWS X-Ray" is incorrect. This is used for tracing and debugging applications.

References:

<https://docs.aws.amazon.com/AmazonS3/latest/dev/WebsiteHosting.html>

Question 51:

You need to connect your company's on-premise network into AWS and would like to establish an AWS managed VPN service. Which of the following configuration items needs to be setup on the Amazon VPC side of the connection?

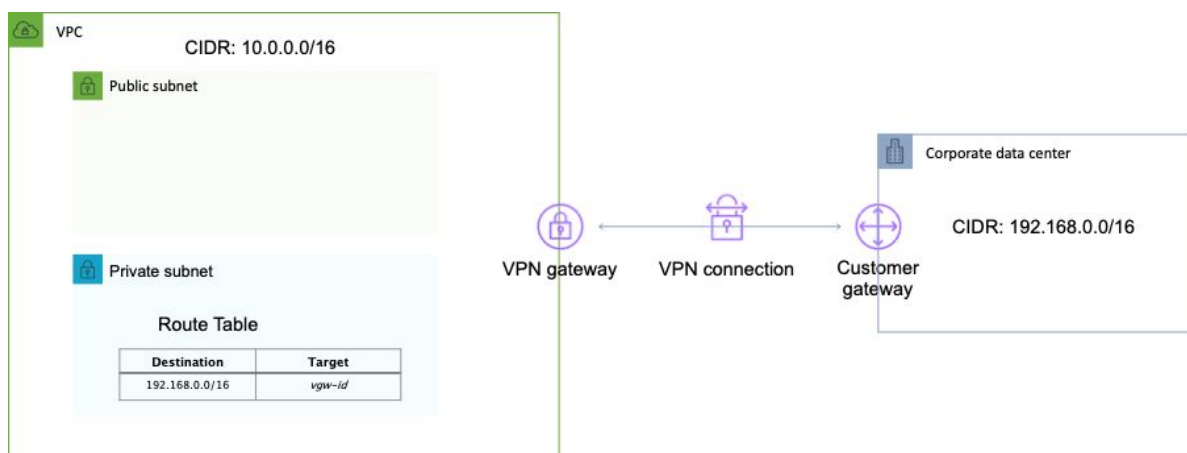
1. A Customer Gateway
2. A Virtual Private Gateway

3. A Network Address Translation device
4. A Firewall

Correct Answer(s): 2

Explanation:

A virtual private gateway is the VPN concentrator on the Amazon side of the VPN connection. You create a virtual private gateway and attach it to the VPC from which you want to create the VPN connection.



CORRECT: "A Virtual Private Gateway" is the correct answer.

INCORRECT: "A Customer Gateway" is incorrect. A customer gateway is a physical device or software application on your side of the VPN connection.

INCORRECT: "A Network Address Translation device" is incorrect. NAT devices and firewalls are not required for an AWS managed VPN.

INCORRECT: "A Firewall" is incorrect. A firewall is not required for a VPN connection.

References:

https://docs.aws.amazon.com/vpc/latest/userguide/VPC_VPN.html#VPN

Question 52:

Where do Amazon Identity and Access Management (IAM) accounts need to be created for a global organization?

1. In each region where the users are located
2. In each geographical area where the users are located
3. Just create them once, as IAM is a global service
4. Create them globally, and then replicate them regionally

Correct Answer(s): 3

Explanation:

IAM is a global service so you only need to create your users once and can then use those user accounts anywhere globally. The other options are all incorrect. as you do not create IAM accounts regionally, replicate them regionally, or create them within geographical areas.

CORRECT: "Just create them once, as IAM is a global service" is the correct answer.

INCORRECT: "In each region where the users are located" is incorrect as explained above.

INCORRECT: "Create them globally, and then replicate them regionally" is incorrect as explained above.

INCORRECT: "In each geographical area where the users are located" is incorrect as explained above.

References:

<https://aws.amazon.com/iam/>

Question 53:

Under the AWS Shared Responsibility Model, who is responsible for what? (choose 2)

1. Customers are responsible for edge locations
2. Customers are responsible for compute infrastructure
3. Customers are responsible for networking traffic protection
4. AWS are responsible for network and firewall configuration
5. AWS are responsible for networking infrastructure

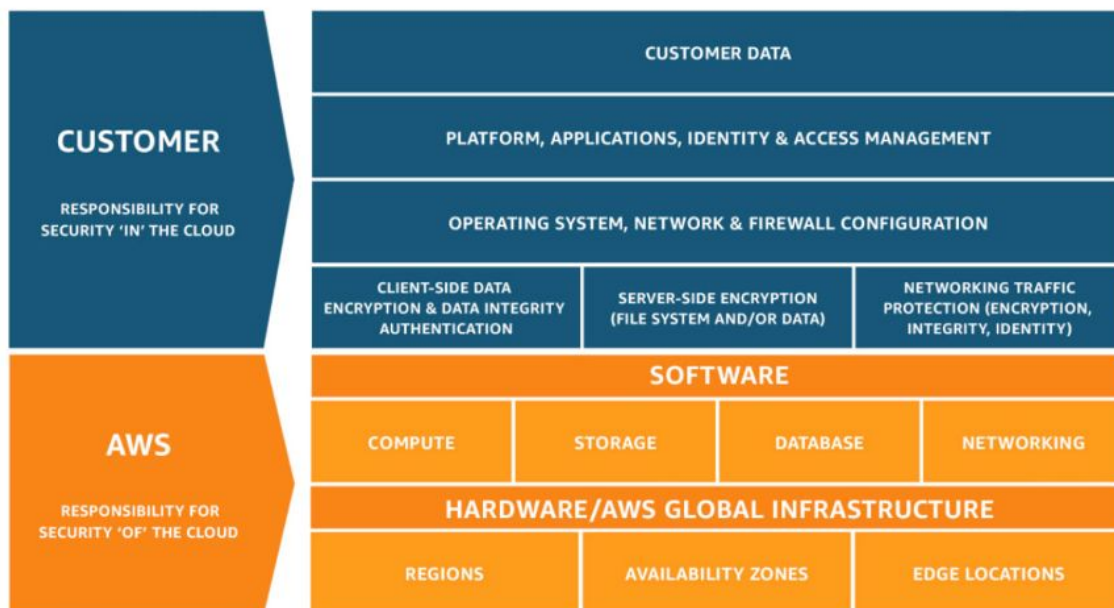
Correct Answer(s): 3, 5

Explanation:

AWS is responsible for protecting the infrastructure that runs all of the services offered in the AWS Cloud. Customers are responsible for security in the cloud and responsibilities vary by service.

Customers are responsible for networking traffic protection. This includes applying encryption and using security groups and Network ACLs.

AWS are responsible for networking infrastructure. The underlying networking equipment is maintained by AWS.



CORRECT: "Customers are responsible for networking traffic protection" is a correct answer.

CORRECT: "AWS are responsible for networking infrastructure" is also a correct answer.

INCORRECT: "Customers are responsible for compute infrastructure" is incorrect. AWS are responsible for compute infrastructure

INCORRECT: "AWS are responsible for network and firewall configuration" is incorrect. Customers are responsible for network and firewall configuration.

INCORRECT: "Customers are responsible for edge locations" is incorrect. AWS are responsible for edge locations.

References:

<https://aws.amazon.com/compliance/shared-responsibility-model/>

Question 54:

Which AWS service makes it easy to coordinate the components of distributed applications as a series of steps in a visual workflow?

1. Amazon SNS
2. Amazon SES
3. Amazon SWF
4. AWS Step Functions

Correct Answer(s): 4

Explanation:

AWS Step Functions lets you coordinate multiple AWS services into serverless workflows so you can build and update apps quickly. AWS Step Functions lets you build visual workflows that enable fast translation of business requirements into technical requirements.

CORRECT: "AWS Step Functions" is the correct answer.

INCORRECT: "Amazon SWF" is incorrect. Amazon SWF helps developers build, run, and scale background jobs that have parallel or sequential steps. SWF is not a visual workflow tool.

INCORRECT: "Amazon SNS" is incorrect. Amazon Simple Notification Service (SNS) is a highly available, durable, secure, fully managed pub/sub messaging service.

INCORRECT: "Amazon SES" is incorrect. Amazon Simple Email Service (Amazon SES) is a cloud-based email sending service designed to help digital marketers and application developers send marketing, notification, and transactional emails.

References:

<https://aws.amazon.com/step-functions/>

Question 55:

Which AWS database service is schema-less and can be scaled dynamically without incurring downtime?

1. Amazon RDS
2. Amazon DynamoDB
3. Amazon Aurora
4. Amazon RedShift

Correct Answer(s): 2

Explanation:

Amazon DynamoDB is a fully managed NoSQL database service that provides fast and predictable performance with seamless scalability. Push button scaling means that you can scale the DB at any time without incurring downtime. DynamoDB is schema-less.

All other options are SQL type of databases and therefore have a schema. They also rely on EC2 instances so cannot be scaled dynamically without incurring downtime (you have to change instance types).

CORRECT: "Amazon DynamoDB" is the correct answer.

INCORRECT: "Amazon RDS" is incorrect as explained above.

INCORRECT: "Amazon Aurora" is incorrect as explained above.

INCORRECT: "Amazon RedShift" is incorrect as explained above.

References:

<https://aws.amazon.com/dynamodb/>

Question 56:

What do you need to log into the AWS console?

1. Access key and secret ID

2. Key pair
3. Certificate
4. User name and password

Correct Answer(s): 4

Explanation:

You can log into the AWS console using a user name and password. You cannot log in to the AWS console using a key pair, access key & secret ID or certificate.

CORRECT: "User name and password" is the correct answer.

INCORRECT: "Key pair" is incorrect as explained above.

INCORRECT: "Access key and secret ID" is incorrect as explained above.

INCORRECT: "Certificate" is incorrect as explained above.

References:

<https://aws.amazon.com/console/>

Question 57:

Your manager has asked you to explain the benefits of using IAM groups. Which of the below statements are valid benefits? (choose 2)

1. Groups let you specify permissions for multiple users, which can make it easier to manage the permissions for those users
2. You can restrict access to the subnets in your VPC
3. Provide the ability to create custom permission policies
4. Provide the ability to nest groups to create an organizational hierarchy
5. Enables you to attach IAM permission policies to more than one user at a time

Correct Answer(s): 1, 5

Explanation:

Groups are collections of users and have policies attached to them. This enables you to organize groups of users by job function or role and apply relevant policies to the group.

You can use groups to assign permissions to users and should follow the principal of least privilege when assigning permissions.

CORRECT: "Groups let you specify permissions for multiple users, which can make it easier to manage the permissions for those users" is a correct answer.

CORRECT: "Enables you to attach IAM permission policies to more than one user at a time" is also a correct answer.

INCORRECT: "You can restrict access to the subnets in your VPC" is incorrect as this describes Network ACLs.

INCORRECT: "Provide the ability to create custom permission policies" is incorrect as this describes IAM policies.

INCORRECT: "Provide the ability to nest groups to create an organizational hierarchy" is incorrect. You cannot nest groups (groups within groups).

References:

<https://docs.aws.amazon.com/IAM/latest/UserGuide/id.html>

Question 58:

Which resource should you use to access AWS security and compliance reports?

1. AWS IAM
2. AWS Business Associate Addendum (BAA)
3. AWS Artifact
4. AWS Organizations

Correct Answer(s): 3

Explanation:

AWS Artifact, available in the console, is a self-service audit artifact retrieval portal that provides our customers with on-demand access to AWS'

compliance documentation and AWS agreements.

CORRECT: "AWS Artifact" is the correct answer.

INCORRECT: "AWS Business Associate Addendum (BAA)" is incorrect. The Business Associate Addendum (BAA) is an agreement you can choose to accept within AWS Artifact Agreements.

INCORRECT: "AWS IAM" is incorrect. AWS Identity and Access Management (IAM) is the service used for creating and managing users, groups, roles and policies.

INCORRECT: "AWS Organizations" is incorrect. AWS Organizations helps you centrally govern your environment as you grow and scale your workloads on AWS. Using AWS Organizations, you can automate account creation, create groups of accounts to reflect your business needs, and apply policies for these groups for governance.

References:

<https://aws.amazon.com/artifact/>

Question 59:

Which AWS technology can be referred to as a “virtual hard disk in the cloud”?

1. Amazon EBS volume
2. Amazon S3 Bucket
3. Amazon ENI
4. Amazon EFS Filesystem

Correct Answer(s): 1

Explanation:

An Amazon Elastic Block Store (EBS) volume is often described as a “virtual hard disk in the cloud”. EBS volumes are block-level storage volumes that are attached to EC2 instances much as you would attach a virtual hard disk to a virtual machine in a virtual infrastructure.

CORRECT: "Amazon EBS volume" is the correct answer.

INCORRECT: "Amazon EFS Filesystem" is incorrect. An Amazon EFS filesystem is a file-level storage system that is accessed using the NFS protocol. Filesystems are mounted at the file, rather than the block level and are therefore not similar to a virtual hard disk.

INCORRECT: "Amazon S3 Bucket" is incorrect. Amazon S3 is an object-level storage service and is not mounted or attached. You use a REST API over HTTPS to access objects in an object store.

INCORRECT: "Amazon ENI" is incorrect. An Amazon Elastic Network Interface is a networking construct, not a storage construct.

References:

<https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/ebs-volumes.html>

Question 60:

Which AWS service can be used to run Docker containers?

1. Amazon AMI
2. AWS Lambda
3. Amazon ECR
4. AWS Fargate

Correct Answer(s): 4

Explanation:

AWS Fargate is a serverless compute engine for containers that works with both Amazon Elastic Container Service (ECS) and Amazon Elastic Kubernetes Service (EKS).

Fargate makes it easy for you to focus on building your applications. Fargate removes the need to provision and manage servers, lets you specify and pay for resources per application, and improves security through application isolation by design.

CORRECT: "Amazon ECS" is the correct answer.

INCORRECT: "AWS Lambda" is incorrect. AWS Lambda is a serverless technology that lets you run code in response to events as functions

INCORRECT: "Amazon ECR" is incorrect. Amazon Elastic Container Registry (ECR) is a fully-managed Docker container registry that makes it easy for developers to store, manage, and deploy Docker container images

INCORRECT: "Amazon AMI" is incorrect. Amazon Machine Images (AMI) store configuration information for Amazon EC2 instances.

References:

<https://aws.amazon.com/fargate/>

Question 61:

Which feature of Amazon S3 enables you to create rules to control the transfer of objects between different storage classes?

1. Bucket policies
2. Versioning
3. Lifecycle management
4. Object sharing

Correct Answer(s): 3

Explanation:

To manage your objects so that they are stored cost effectively throughout their lifecycle, configure their Amazon S3 Lifecycle. An S3 Lifecycle configuration is a set of rules that define actions that Amazon S3 applies to a group of objects. There are two types of actions:

- Transition actions—Define when objects transition to another storage class. For example, you might choose to transition objects to the S3 Standard-IA storage class 30 days after you created them, or archive objects to the S3 Glacier storage class one year after creating them.
- Expiration actions—Define when objects expire. Amazon S3 deletes expired objects on your behalf. The lifecycle expiration costs depend on when you choose to expire objects.

CORRECT: "Lifecycle management" is the correct answer.

INCORRECT: "Object sharing" is incorrect. Object sharing refers to the ability to make any object publicly available via a URL.

INCORRECT: "Versioning" is incorrect. Versioning enabled you to automatically keep multiple versions of an object (when enabled).

INCORRECT: "Bucket policies" is incorrect. Bucket policies are used for controlling access to buckets, they can't be used to move data between storage classes.

References:

<https://docs.aws.amazon.com/AmazonS3/latest/dev/object-lifecycle-mgmt.html>

Question 62:

According to the AWS Shared Responsibility Model, which of the following is a shared control?

1. Protection of infrastructure
2. Awareness and training
3. Client-side data encryption
4. Operating system patching

Correct Answer(s): 2

Explanation:

Shared Controls are controls which apply to both the infrastructure layer and customer layers, but in completely separate contexts or perspectives. In a shared control, AWS provides the requirements for the infrastructure and the customer must provide their own control implementation within their use of AWS services. Examples include patch management, configuration management, and awareness and training.

CORRECT: "Awareness and training" is the correct answer.

INCORRECT: "Operating system patching" is incorrect. Though patch management is a shared control, operating system patching specifically is a customer responsibility.

INCORRECT: "Protection of infrastructure" is incorrect. Protection of infrastructure is solely an AWS responsibility.

INCORRECT: "Client-side data encryption" is incorrect. Client and server-side data encryption are both customer responsibilities.

References:

<https://aws.amazon.com/compliance/shared-responsibility-model/>

Question 63:

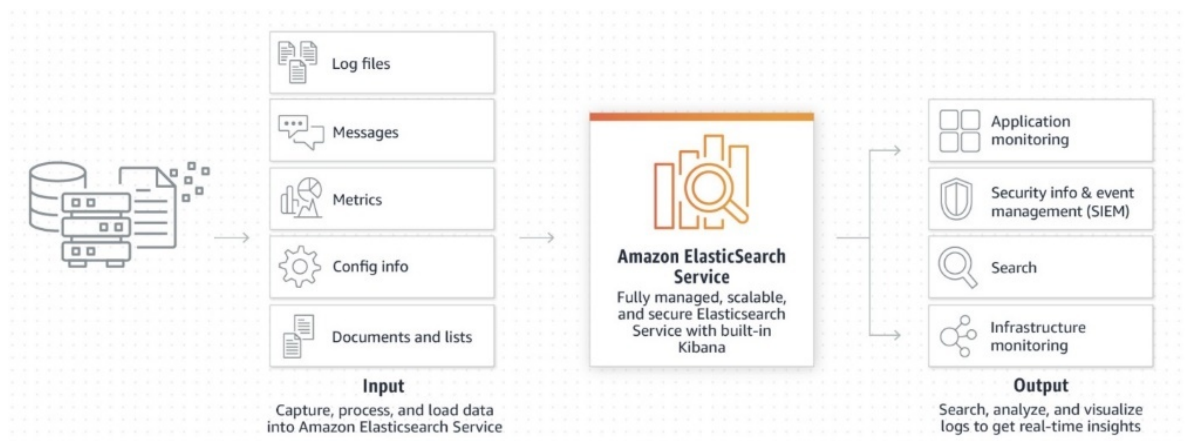
Which AWS service is designed to be used for operational analytics?

1. Amazon Athena
2. Amazon QuickSight
3. Amazon EMR
4. Amazon Elasticsearch Service

Correct Answer(s): 4

Explanation:

Amazon Elasticsearch Service is involved with operational analytics such as application monitoring, log analytics and clickstream analytics. Amazon Elasticsearch Service allows you to search, explore, filter, aggregate, and visualize your data in near real-time.



CORRECT: "Amazon Elasticsearch Service" is the correct answer.

INCORRECT: "Amazon EMR" is incorrect. For big data processing using the Spark and Hadoop frameworks, Amazon EMR provides a managed service for processing vast amounts data.

INCORRECT: "Amazon Athena" is incorrect. Amazon Athena is used to analyze data directly in S3 and Glacier using standard SQL queries.

INCORRECT: "Amazon QuickSight" is incorrect. Amazon QuickSight provides a fast, cloud-powered business analytics service, that that makes it easy to build stunning visualizations and rich dashboards that can be accessed from any browser or mobile device.

References:

<https://aws.amazon.com/elasticsearch-service/>

<https://aws.amazon.com/big-data/datalakes-and-analytics/>

Question 64:

Which type of Elastic Load Balancer operates at the TCP connection level?

1. Classic Load Balancer (CLB)
2. Amazon Route 53 Load Balancer
3. Network Load Balancer (NLB)
4. Application Load Balancer (ALB)

Correct Answer(s): 3

Explanation:

A Network Load Balancer functions at the fourth layer of the Open Systems Interconnection (OSI) model. NLBs direct connections based on information at the TCP connection level.

CORRECT: "Network Load Balancer (NLB)" is the correct answer.

INCORRECT: "Application Load Balancer (ALB)" is incorrect. ALBs process traffic at the application level (layer 7) based on information in the HTTP/HTTPS headers.

INCORRECT: "Classic Load Balancer (CLB)" is incorrect. CLBs process traffic at the TCP, SSL, HTTP and HTTPS levels (layer 4 & 7).

INCORRECT: "Amazon Route 53 Load Balancer" is incorrect. There is no feature called a load balancer that is associated with Route 53. You can perform a type of load balancing using multivalued answer routing.

References:

<https://docs.aws.amazon.com/elasticloadbalancing/latest/network/introduction.html>

Question 65:

A company is using the AWS CLI and programmatic access of AWS resources from its on-premises network.

1. What is a mandatory requirement in this scenario?
2. Using an AWS access key and a secret key
3. Using an AWS Direct Connect connection
4. Using Amazon API Gateway
5. Using an Amazon EC2 key pair

Correct Answer(s): 2

Explanation:

Access keys are long-term credentials for an IAM user or the AWS account root user. You can use access keys to sign programmatic requests to the AWS CLI or AWS API (directly or using the AWS SDK).

Access keys consist of two parts: an access key ID (for example, AKIAIOSFODNN7EXAMPLE) and a secret access key (for example, wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY). Like a user name and password, you must use both the access key ID and secret access key together to authenticate your requests.

CORRECT: "Using an AWS access key and a secret key" is the correct answer.

INCORRECT: "Using an AWS Direct Connect connection" is incorrect. It is not a requirement that you use a Direct Connect connection. You can access public services via the API using the internet. For private services you can use Direct Connect, a VPN, or a bastion host.

INCORRECT: "Using Amazon API Gateway" is incorrect. You do not need API Gateway for programmatic access to the AWS API.

INCORRECT: "Using an Amazon EC2 key pair" is incorrect. A key pair is used to securely access EC2 resources and should not be confused with access keys.

References:

https://docs.aws.amazon.com/IAM/latest/UserGuide/id_credentials_access-keys.html

The AWS Certified logo, featuring the word "aws" in white, a yellow checkmark icon, and the word "CERTIFIED" in white.

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