

Practice Exam 2, Answers & Explanations

Question 1

Which AWS service gives you centralized control over the encryption keys used to protect your data?

1. AWS STS
2. AWS KMS
3. AWS DMS
4. Amazon EBS

Answer: 2

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
- 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
- AWS Database Migration Service (DMS) helps you migrate databases to AWS quickly and securely
- Amazon Elastic Block Store (Amazon EBS) provides persistent block storage volumes for use with Amazon EC2 instances in the AWS Cloud

References:

- <https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/cloud-security/>

Question 2

How can a security compliance officer retrieve AWS compliance documentation such as a SOC 2 report?

1. Using AWS Artifact
2. Using AWS Trusted Advisor
3. Using AWS Inspector
4. Using the AWS Personal Health Dashboard

Answer: 1

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
- AWS Trusted Advisor is an online resource to help you reduce cost, increase performance, and improve security by optimizing your AWS environment
- Inspector is an automated security assessment service that helps improve the security and compliance of applications deployed on AWS
- AWS Personal Health Dashboard provides alerts and remediation guidance when AWS is experiencing events that may impact you

References:

- <https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/cloud-security/>
- <https://aws.amazon.com/artifact/>

Question 3

Which items should be included in a TCO analysis comparing on-premise to AWS Cloud?
(choose 2)

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

Answer: 3,4

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

References:

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

Question 4

Which service provides visibility into user activity by recording actions taken on your account?

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

Answer: 3

Explanation:

- 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)
- CloudFormation is used for deploying infrastructure through code
- CloudHSM is a hardware security module for generating, managing and storing encryption keys

References:

- <https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/monitoring-and-logging-services/>

Question 5

Which of the facts below are accurate in relation to AWS Regions? (choose 2)

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

Answer: 1,3

Explanation:

- 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
- Availability Zones (not regions) have direct, low-latency, high throughput and redundant network connections between each other
- Edge locations are (not regions) are Content Delivery Network (CDN) endpoints for CloudFront

References:

- <https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/aws-global-infrastructure/>

Question 6

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

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

Answer: 4

Explanation:

- Amazon EC2 provides elastic web-scale computing in the cloud allowing you to deploy Windows and Linux
- AWS Lambda lets you run code without provisioning or managing server operating systems
- Amazon Elastic Block Store (Amazon EBS) provides persistent block storage volumes for use with Amazon EC2 instances in the AWS Cloud
- Amazon Relational Database Service (Amazon RDS) makes it easy to set up, operate, and scale a relational database in the cloud

References:

- <https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/aws-compute/>

Question 7

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

Answer: 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
- ELB automatically distributes incoming application traffic across multiple targets, such as Amazon EC2 instances, containers, and IP addresses
- 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
- **Amazon ElastiCache** offers fully managed Redis and Memcached

References:

- <https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/elastic-load-balancing-and-auto-scaling/>

Question 8

Which configuration changes are associated with scaling vertically? (choose 2)

1. Adding additional EC2 instances through Auto Scaling
2. Adding additional hard drives to a storage array
3. Adding a larger capacity hard drive to a server
4. Distributed processing
5. Changing an EC2 instance to a type that has more CPU and RAM

Answer: 3,5

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
- 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)

References:

- <https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/architecting-for-the-cloud/>

Question 9

What are two ways an AWS customer can reduce their monthly spend? (choose 2)

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

Answer: 1,3

Explanation:

- Turning off resources that are not used can reduce spend. You can also use reserved instances to reduce the monthly spend at the expense of having to lock into a 1 or 3-year contract - good for stable workloads
- You don't pay for power, security groups, or data ingress to the AWS cloud so these answers are all incorrect

References:

- <https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/aws-billing-and-pricing/>

Question 10

Which AWS services can be utilized at no cost? (choose 2)

1. Identity and Access Management (IAM)
2. Amazon VPC
3. Amazon S3
4. Amazon CloudFront
5. Amazon RedShift

Answer: 1,2

Explanation:

- The only services that do not incur cost in this list are IAM and VPC

References:

- <https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/aws-billing-and-pricing/>

Question 11

Which types of AWS resource can be launched from a Golden Image? (choose 2)

1. Amazon DynamoDB tables
2. Amazon EC2 instances
3. AWS Lambda functions
4. Amazon RDS instances
5. Amazon S3 objects

Answer: 2,4

Explanation:

- Some resource types can be launched from a golden image. A golden image is a snapshot of a particular state for that resource. Examples are EC2 instances, RDS instances and EBS volumes

References:

- <https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/architecting-for-the-cloud/>

Question 12

Using AWS terminology, which items can be created in an Amazon S3 bucket? (choose 2)

1. Folders
2. Files
3. Tables
4. Objects
5. Queues

Answer: 1,4

Explanation:

- You can create folders within buckets and can also upload objects
- As S3 is an object store you create objects not files
- Tables and queues cannot be created on S3

References:

- <https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/aws-storage/>

Question 13

What are two ways of connecting to an Amazon VPC from an on-premise data center? (choose 2)

1. VPC Peering
2. Direct Connect
3. VPN CloudHub
4. Internet Gateway
5. VPC Router

Answer: 2,3

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
- Internet gateways and VPC routers are components of a VPC and are not used for connecting from external locations

References:

- <https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/aws-networking/>
- https://docs.aws.amazon.com/vpc/latest/userguide/VPN_CloudHub.html

Question 14

Which of the below is Amazon's proprietary RDS database?

1. MariaDB
2. MySQL
3. DynamoDB
4. Aurora

Answer: 4

Explanation:

- Aurora is Amazon's proprietary database
- MariaDB and MySQL can be used on RDS but they are not Amazon proprietary
- DynamoDB is an Amazon proprietary DB but it is not an RDS DB

References:

- <https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/aws-databases/>

Question 15

A new user is unable to access any AWS services, what is the most likely explanation?

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

Answer: 3

Explanation:

- By default, new users are created with NO access to any AWS services – they can only login to the AWS console

References:

- <https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/identity-and-access-management/>

Question 16

Which of the following compliance programs allows the AWS environment to process, maintain, and store protected health information?

1. ISO 27001
2. PCI DSS
3. HIPAA
4. SOC 1

Answer: 3

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

References:

- <https://aws.amazon.com/compliance/hipaa-compliance/>

Question 17

Which of the following services does Amazon Route 53 provide? (choose 2)

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

Answer: 1,3

Explanation:

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

References:

- <https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/content-delivery-and-dns-services/>

Question 18

Which file format is used to write AWS Identity and Access Management (IAM) policies?

1. DOC
2. XML
3. JBOD
4. JSON

Answer: 4

Explanation:

- You manage access in AWS by creating policies and attaching them to IAM identities or AWS resources. A policy is an object in AWS that, when associated with an entity or resource, defines their permissions. AWS evaluates these policies when a principal, such as a user, makes a request. Permissions in the policies determine whether the request is allowed or denied. Most policies are stored in AWS as JSON documents

References:

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

Question 19

Which of the following are valid types of Reserved Instance? (choose 2)

1. Convertible RI
2. Discounted RI
3. Scheduled RI
4. Long-Term RI
5. Special RI

Answer: 1,3

Explanation:

- **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

References:

- <https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/aws-billing-and-pricing/>
- <https://aws.amazon.com/ec2/pricing/reserved-instances/>

Question 20

At what level is a Network ACL applied?

1. Instance level
2. Region level
3. Availability Zone level
4. Subnet level

Answer: 4

Explanation:

- Network Access Control Lists (ACLs) provide a firewall/security layer at the subnet level
- Security Groups provide a firewall/security layer at the instance level

References:

- <https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/aws-networking/>

Question 21

An architect needs to compare the cost of deploying an on-premise web server and an EC2 instance on the AWS cloud. Which tool can be used to assist the architect?

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

Answer: 3

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 AWS Cost Explorer is a free tool that allows you to view charts of your costs
- The AWS Simple Monthly Calculator helps customers and prospects estimate their monthly AWS bill more efficiently
- AWS Budgets gives you the ability to set custom budgets that alert you when your costs or usage exceed

References:

- <https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/aws-billing-and-pricing/>

Question 22

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 Lightsail
3. Amazon ECS
4. AWS Lambda

Answer: 2

Explanation:

- Lightsail provides developers compute, storage, and networking capacity and capabilities to deploy and manage websites, web applications, and databases in the cloud
- Lightsail includes everything you need to launch your project quickly – a virtual machine, SSD-based storage, data transfer, DNS management, and a static IP
- Lightsail provides preconfigured virtual private servers (instances) that include everything required to deploy an application or create a database
- CloudFormation is used to deploy resources through code, as a service it does not include preconfigured servers
- 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

- Lambda is a serverless computing technology that allows you to run code without provisioning or managing servers

References:

- <https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/aws-compute/>

Question 23

Which AWS service protects against common exploits that could compromise application availability, compromise security or consume excessive resources?

1. AWS WAF
2. AWS Shield
3. Security Group
4. Network ACL

Answer: 1

Explanation:

- AWS WAF is a web application firewall that protects against common exploits that could compromise application availability, compromise security or consume excessive resources
- AWS Shield is a managed Distributed Denial of Service (DDoS) protection service
- Security groups and Network ACLs are firewalls protecting at the instance and subnet level respectively

References:

- <https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/cloud-security/>

Question 24

A Solutions Architect is launching a new EC2 instance that will be a web-server. Which EBS volume type provides a good balance of price and performance and can be used as a system boot volume?

1. Cold HDD (sc1)
2. Throughput Optimized (st1)
3. General Purpose (gp2)
4. Provisioned IOPS (io1)

Answer: 3

Explanation:

- General purpose SSD provides a good balance of price to performance, is suitable for most workloads and can be used as a system boot volume
- Provisioned IOPS SSD is a high-performance volume type that is more expensive and should be used for apps that require the higher performance
- Cold HDD cannot be used as a boot volume and is good for throughput oriented storage for infrequently accessed data
- Throughput Optimized volumes are ideal for streaming workloads with fast throughput such as big data and data warehouses

References:

- <https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/aws-storage/>

Question 25

Which Amazon S3 storage tier provides does not include a data retrieval fee and has an availability SLA of 99.99%?

1. S3 Standard
2. S3 Standard-IA
3. S3 One Zone-IA
4. Amazon Glacier

Answer: 1

Explanation:

- All of the storage tiers listed include a data retrieval fee except for S3 Standard
- Availability SLAs are: S3 Standard = 99.99%; S3 Standard-IA = 99.9%; S3 One Zone-IA = 99%; Amazon Glacier = no SLA

References:

- <https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/aws-storage/>

Question 26

An organization would like to run managed desktops on the AWS cloud using the Windows 10 operating system. Which service can deliver these requirements?

1. Amazon EC2
2. Amazon Workspaces
3. Amazon SWF
4. Amazon does not provide desktop services

Answer: 2

Explanation:

- Amazon WorkSpaces is a managed desktop computing service running on the AWS cloud
- WorkSpaces allows customers to easily provision cloud-based desktops that allow end-users to access documents and applications
- WorkSpaces offers bundles that come with a Windows 7 or Windows 10 desktop experience, powered by Windows Server 2008 R2 and Windows Server 2016 respectively

References:

- <https://digitalcloud.training/certification-training/aws-solutions-architect-associate/desktop-app-streaming/amazon-workspaces/>

Question 27

How can an organization assess applications for vulnerabilities and deviations from best practice?

1. Use AWS Artifact
2. Use AWS Inspector
3. Use AWS Shield
4. Use AWS WAF

Answer: 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
- AWS Artifact is your go-to, central resource for compliance-related information that matters to you
- AWS Shield is a managed Distributed Denial of Service (DDoS) protection service
- AWS WAF is a web application firewall

References:

- <https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/cloud-security/>

Question 28

Which of the following is NOT one of the five AWS Trusted Advisor categories?

1. Cost Optimization
2. Performance
3. Security
4. Application transformation

Answer: 4

Explanation:

- The five categories are cost optimization, performance, security, fault tolerance and service limits

References:

- <https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/cloud-security/>

Question 29

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? (choose 2)

1. The number of VPCs created
2. The number of servers migrated into EC2
3. The number of IAM users created
4. The amount of egress data per month
5. The amount of ingress data per month

Answer: 2,4

Explanation:

- AWS charge for EC2 instances and data egress. There are no charges for VPCs, IAM users or data ingress

References:

- <https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/cloud-computing-concepts/>

Question 30

What features does Amazon RDS provide to deliver scalability, availability and durability?
(choose 2)

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

Answer: 1,2

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
- DB mirroring, multi-subnet and clustering are not options provided by RDS

References:

- <https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/aws-databases/>
- <https://digitalcloud.training/certification-training/aws-solutions-architect-associate/database/amazon-rds/>

Question 31

Which of the following are AWS recommended best practices in relation to IAM? (choose 2)

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

Answer: 2,5

Explanation:

- AWS recommend creating individual IAM users and assigning the least privileges necessary for them to perform their role
- You should use groups to assign permissions to IAM users, should avoid embedding access keys in application code, and should enable MFA for privileged users (not everyone)

References:

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

Question 32

What is an example of using loose coupling when designing an information system?

1. Synchronous replication
2. Proprietary interfaces
3. DNS name usage
4. Monolithic application architecture

Answer: 3

Explanation:

- DNS names are used for service discovery. In loose coupling disparate resources must have a way of discovering each other without prior knowledge of the network topology
- Asynchronous integration rather than synchronous replication is recommended so an interaction does not require an immediate response
- You should use standard, technology-agnostic interfaces rather than proprietary interfaces where possible
- A monolithic application architecture is not an example of loose coupling

References:

- <https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/architecting-for-the-cloud/>

Question 33

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 Elastic Beanstalk
2. AWS CodeBuild
3. AWS CodeDeploy
4. AWS CloudFormation

Answer: 4

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
- 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
- AWS CodeBuild is a fully managed continuous integration service that compiles source code, runs tests, and produces software packages that are ready to deploy
- AWS Elastic Beanstalk is the fastest and simplest way to get web applications up and running on AWS

References:

- <https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/additional-aws-services-tools/>

Question 34

Which of the following security operations tasks must be performed by AWS customers?
(choose 2)

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

Answer: 3,4

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

References:

- <https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/aws-shared-responsibility-model/>

Question 35

At which layers of the OSI model do the different types of Elastic Load Balancers operate?
(choose 2)

1. Network Load Balancer at layer 4
2. Classic Load Balancer at layer 3
3. Application Load Balancer at layer 7
4. Network Load Balancer at layer 3
5. Application Load Balancer at layer 4

Answer: 1,3

Explanation:

- Application Load Balancer (ALB) – layer 7 load balancer that routes connections based on the content of the request
- Network Load Balancer (NLB) – layer 4 load balancer that routes connections based on IP protocol data
- Classic Load Balancer (CLB) – this is the oldest of the three and provides basic load balancing at both layer 4 and layer 7

References:

- <https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/elastic-load-balancing-and-auto-scaling/>

Question 36

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

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

Answer: 1

Explanation:

- Amazon S3 can be used to host static websites. It is not possible to use dynamic content. You can use a custom domain name if you configure the bucket name to match
- The other services listed cannot be used to host a static website

References:

- <https://digitalcloud.training/certification-training/aws-solutions-architect-associate/storage/amazon-s3/>

Question 37

What type of storage is provided by Amazon EBS?

1. Block
2. File
3. Object
4. Relational

Answer: 1

Explanation:

- Amazon Elastic Block Storage (EBS) is block storage. This means you can mount the volume for operating systems and format and partition as if it is a local disk
- File and object are other types of storage that you can use with AWS. File storage is provided by EFS and object storage is provided by Amazon S3
- Relational is not a type of storage, it is typically used to describe a type of database such as RDS

References:

- <https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/aws-storage/>

Question 38

What type of database is fully managed and can be scaled without incurring downtime?

1. Amazon RDS
2. Amazon S3
3. Amazon DynamoDB
4. Amazon ElastiCache

Answer: 3

Explanation:

- DynamoDB is fully managed and can be scaled without incurring downtime
- S3 is not a fully managed database, it is an object store
- Both RDS and ElastiCache use EC2 instances and therefore scaling (vertically) requires downtime

References:

- <https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/aws-databases/>

Question 39

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

Answer: 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

References:

- <https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/monitoring-and-logging-services/>
- https://docs.aws.amazon.com/AmazonCloudWatch/latest/monitoring/monitor_estimated_charges_with_cloudwatch.html

Question 40

Which AWS support plans provide support via email, chat and phone? (choose 2)

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

Answer: 3,4

Explanation:

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

References:

- <https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/aws-billing-and-pricing/>

Question 41

Which of the following services allow root level access to the operating system? (choose 2)

1. Amazon ElastiCache
2. Amazon EC2
3. Amazon SQS
4. Amazon EMR
5. Amazon SWF

Answer: 2,4

Explanation:

- In this list only EC2 and EMR allow root level access to the operating system

Question 42

You need to implement a hosted queue for storing messages in transit between application servers. Which service should you use?

1. Amazon SWF
2. Amazon SNS
3. Amazon SQS
4. Amazon DynamoDB

Answer: 3

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
- Amazon SWF helps developers build, run, and scale background jobs that have parallel or sequential steps
- 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 DynamoDB is a nonrelational database that delivers reliable performance at any scale

References:

- <https://digitalcloud.training/certification-training/aws-solutions-architect-associate/application-integration/amazon-sqs/>

Question 43

Which configuration changes are associated with scaling horizontally? (choose 2)

1. Adding additional EC2 instances through Auto Scaling
2. Adding a larger capacity hard drive to a server
3. Changing the DB instance class on an RDS DB
4. Adding additional hard drives to a storage array
5. Changing an EC2 instance to a type that has more CPU and RAM

Answer: 1,4

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

References:

- <https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/architecting-for-the-cloud/>

Question 44

Which AWS construct provides you with your own dedicated virtual network in the cloud?

1. Amazon Workspaces
2. Amazon EC2
3. Amazon IAM
4. Amazon VPC

Answer: 4

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
- Amazon WorkSpaces is a managed desktop computing service running on the AWS cloud

- IAM is used to securely control individual and group access to AWS resources
- Amazon Elastic Compute Cloud (Amazon EC2) is a web service that provides secure, resizable compute capacity in the cloud

References:

- <https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/aws-networking/>

Question 45

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

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

Answer: 2

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
- 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
- Static IP and dynamic IP are terms used to describe IP addresses (public or private) that are either statically defined or dynamically obtained (through DHCP)

References:

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

Question 46

An architect is creating a scalable application using AWS Auto Scaling. What needs to be created to enable a working configuration? (choose 2)

1. Create a listener
2. Create an Auto Scaling group
3. Create a launch configuration
4. Create a target group
5. Create a listener rule

Answer: 2,3

Explanation:

- To setup Auto Scaling, two of the tasks that need to be performed are to create a launch configuration and an Auto Scaling group
- Listeners, listener rules and target groups are associated with Elastic Load Balancing

References:

- <https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/elastic-load-balancing-and-auto-scaling/>

Question 47

A Solutions Architect is designing 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? (choose 2)

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

Answer: 1,3

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
- With Amazon EC2 you need to select your instance sizes and number of instances
- With RDS you need to select the instance size for the DB
- With DynamoDB you need to specify the read/write capacity of the DB

References:

- <https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/aws-storage/>
- <https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/aws-compute/>

Question 48

Which AWS service can assist with coordinating tasks across distributed application components?

1. Amazon STS
2. Amazon SQS
3. Amazon SWF
4. Amazon SNS

Answer: 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
- Amazon Security Token Service (STS) is used for requesting temporary credentials
- Amazon Simple Queue Service (SQS) is a message queue used for decoupling application components
- 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://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/additional-aws-services-tools/>
- <https://digitalcloud.training/certification-training/aws-solutions-architect-associate/application-integration/amazon-swf/>

Question 49

What kinds of routing policies are available in Amazon Route 53? (choose 2)

1. Simple
2. Failback
3. Fault tolerant
4. Latency
5. Shortest Path First

Answer: 1,4

Explanation:

- Route 53 routing policies include Simple, Weighted, Latency based, Failover, Geo-location, Geo-Proximity, Multi-Value and Traffic Flow

References:

- <https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/content-delivery-and-dns-services/>
- <https://digitalcloud.training/certification-training/aws-solutions-architect-associate/networking-and-content-delivery/amazon-route-53/>

Question 50

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 S3 Standard-Infrequent Access
3. Amazon EFS
4. Amazon S3 Standard

Answer: 2

Explanation:

- Amazon Glacier with expedited retrievals is fast (1-5 minutes) but not immediate
- Amazon S3 Standard-Infrequent Access is the most cost-effective choice
- Amazon EFS is a high-performance file system and not ideally suited to this scenario, it is also not the most cost-effective option
- Amazon S3 Standard provides immediate retrieval but is not less cost-effective compared to Standard-Infrequent access

References:

- <https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/aws-storage/>

Question 51

What components can be managed in the Virtual Private Cloud (VPC) management console?
(choose 2)

1. Subnets
2. Elastic Load Balancers
3. Auto Scaling
4. IP CIDR
5. Snapshots

Answer: 1,4

Explanation:

- Within the management console for VPC you can manage items such as subnets and the IP CIDR block for the VPC
- The other answers are all items that can be managed within the EC2 management console

References:

- <https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/aws-networking/>
- <https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/aws-compute/>

Question 52

Which services are managed at a regional (rather than global) level? (choose 2)

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

Answer: 3,4

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
- CloudFront, Route 53 and IAM are managed at a global level

References:

- <https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/aws-global-infrastructure/>
- <https://aws.amazon.com/about-aws/global-infrastructure/regional-product-services/>

Question 53

What are the names of two types of AWS Storage Gateway? (choose 2)

1. S3 Gateway
2. File Gateway
3. Block Gateway
4. Gateway Virtual Tape Library
5. Cached Gateway

Answer: 2,4

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
- Gateway Virtual Tape Library is used for backup with popular backup software
- All other answers are bogus and use terms that are associated with Storage Gateways (S3, block, cached)

References:

- <https://digitalcloud.training/certification-training/aws-solutions-architect-associate/storage/aws-storage-gateway/>

Question 54

To connect an on-premises network to an Amazon VPC using an Amazon Managed VPN connection, which components are required? (choose 2)

1. VPC Router
2. Virtual Private Gateway
3. NAT Instance
4. Direct Connect
5. Customer Gateway

Answer: 2,5

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
- VPC routers are not part of the VPN configuration
- NAT instances are not used for VPN, they are used by EC2 instances in private subnets to access the Internet
- 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 55

Which AWS service can be used to run Docker containers?

1. AWS Lambda
2. Amazon ECR
3. Amazon ECS
4. Amazon AMI

Answer: 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
- AWS Lambda is a serverless technology that lets you run code in response to events as functions
- 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 Machine Images (AMI) store configuration information for Amazon EC2 instances

References:

- <https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/aws-compute/>

Question 56

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

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

Answer: 2

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

References:

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

Question 57

Which tool can be used to create and manage a selection of AWS services that are approved for use on AWS?

1. AWS Service Catalog
2. AWS OpsWorks
3. Amazon Cloud Directory
4. AWS Organizations

Answer: 1

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
- AWS OpsWorks is a configuration management service that provides managed instances of Chef and Puppet
- Amazon Cloud Directory enables you to build flexible cloud-native directories for organizing hierarchies of data along multiple dimensions
- AWS Organizations offers policy-based management for multiple AWS accounts

References:

- <https://aws.amazon.com/servicecatalog/>

Question 58

Which services are involved with security? (choose 2)

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

Answer: 1,3

Explanation:

- AWS Key Management Service 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
- AWS Database Migration Service and Server Migration Service are used for migration
- Amazon Elastic Load Balancing is used for distributing incoming connections to pools of EC2 instances

References:

- <https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/cloud-security/>

Question 59

What is a Resource Group?

1. A collection of resources within a VPC
2. A collection of resources that share one or more tags
3. A collection of services within a category
4. A collection of services within a region

Answer: 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

References:

- <https://docs.aws.amazon.com/awsconsolehelpdocs/latest/gsg/what-are-resource-groups.html>

Question 60

What are the benefits of using the AWS Managed Services? (choose 2)

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

Answer: 1,3

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

References:

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

Question 61

Which database engines are supported by Amazon RDS? (choose 2)

1. DynamoDB
2. SQL Server
3. ElastiCache
4. Aurora
5. MongoDB

Answer: 2,4

Explanation:

- RDS supports the following engines: SQL Server, Oracle, MySQL Server, PostgreSQL, Aurora, MariaDB
- DynamoDB is Amazon's NoSQL database
- MongoDB is a No SQL database
- ElastiCache is not a type of RDS database

References:

- <https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/aws-databases/>

Question 62

What categories of Amazon Machine Image (AMI) are available? (choose 2)

1. Community AMIs
2. Enterprise AMIs
3. AWS Marketplace AMIs
4. Shared AMIs
5. Partner AMIs

Answer: 1,3

Explanation:

- AMIs come in three main categories:
- **Community AMIs**– free to use, generally you just select the operating system you want
- **AWS Marketplace AMIs**– pay to use, generally come packaged with additional, licensed software
- **My AMIs**– AMIs that you create yourself

References:

- <https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/aws-compute/>

Question 63

Which statements are true about Amazon EBS volumes? (choose 2)

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

Answer: 2,3

Explanation:

- EBS volumes must be in the same AZ as the instances they are attached to
- You can attach multiple EBS volumes to an instance
- You cannot attach an EBS volume to multiple instances (use Elastic File Store instead)
- EBS volume data persists independently of the life of the instance
- EBS volumes are block storage

References:

- <https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/aws-storage/>

Question 64

Virtual servers such as EC2 instances are examples of services delivered under which cloud model?

1. IaaS
2. PaaS
3. DBaaS
4. SaaS

Answer: 1

Explanation:

- Infrastructure as a Service (IaaS) contains the basic building blocks for cloud IT and typically provide access to networking features, computers (virtual or on dedicated hardware), and data storage space
- Platform as a Service (PaaS) removes the need for your organization to manage the underlying infrastructure (usually hardware and operating systems) and allows you to focus on the deployment and management of your applications
- Software as a Service (SaaS) provides you with a completed product that is run and managed by the service provider. In most cases, people referring to Software as a Service are referring to end-user applications
- Database as a Service (DBaaS) is a type of PaaS in which a managed database is offered for consumption

References:

- <https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/cloud-computing-concepts/>

Question 65

To optimize pricing or ensure capacity is available reservations can be applied to which of the following services? (choose 2)

1. Amazon EC2
2. AWS Lambda
3. Amazon EBS
4. Amazon RDS
5. Amazon S3

Answer: 1,4

Explanation:

- Reservations apply to various services, including: EC2, DynamoDB, ElastiCache, RDS and RedShift

References:

- <https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/aws-billing-and-pricing/>