Practice Exam 1, Answers & Explanations

Question 1

Which AWS service is primarily used for software version control?

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

Answer: 1

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
- 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
- AWS Cloud9 is a cloud-based integrated development environment (IDE) that lets you write, run, and debug your code with just a browser
- AWS CodeDeploy is a deployment service that automates application deployments to Amazon EC2 instances, on-premises instances, or serverless Lambda functions

References:

- https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/additional-aws-services-tools/
- 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 2

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

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

Answer: 3

Explanation:

- All of these services are managed services except for Amazon EC2. EC2 is the only service in the list upon which you can manually install the database software of your choice

References:

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

Question 3

Identify the services that have a global (rather than regional) scope? (choose 2)

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

Answer: 1,3

Explanation:

- Amazon Route 53 and Amazon CloudFront have a global scope
- Amazon S3 uses a global namespace but buckets and objects are created within a region
- AWS Lambda is a regional service

References:

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

Question 4

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 EC2
4. Amazon Lightsail

Answer: 4

Explanation:

- 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.
- 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
- Amazon EC2 also requires AWS expertise as it deploys within a VPC
- AWS Lambda provides serverless functions not preconfigured servers

References:

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

Question 5

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

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

4. Amazon EFS

Answer: 4

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 protocol
- Amazon S3 is an object-level not file-level storage system
- Amazon Glacier is an archiving solution that is accessed through S3
- 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

References:

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

Question 6

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. Reserved
3. Spot
4. Dedicated Instance

Answer: 1

Explanation:

- Spot instances are good for short term requirements as they can be very economical. However, you may find that the instance is terminated if the spot market price moves
- On-Demand is the best choice for this situation as it is the most economical option that will ensure no interruptions

- 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
- Dedicated instances are EC2 instances that run on hardware dedicated to a single customer

References:

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

Question 7

What is an availability zone composed of?

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

Answer: 2

Explanation:

- 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
- A region is a geographical area
- Each region consists of 2 or more availability zones

References:

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

Question 8

Which AWS services are used for analytics? (choose 2)

1. Amazon RDS
2. Amazon ElastiCache
3. Amazon Athena
4. Amazon S3
5. Amazon EMR

Answer: 3,5

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 instance
- Amazon Athena is an interactive query service that makes it easy to analyze data in Amazon S3 using standard SQL
- ElastiCache is a data caching service that is used to help improve the speed/performance of web applications running on AWS
- Amazon RDS is Amazon's relational database and is primarily used for transactional workloads
- Amazon S3 is used for object storage

References:

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

Question 9

What advantages does deploying Amazon CloudFront provide? (choose 2)

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

Answer: 2, 4

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
- A private network link to the AWS cloud can be provisioned using AWS Direct Connect or an IPSec VPN

- Automated deployment of resources is performed using CloudFormation
- CloudFront is a CDN not a serverless compute service

References:

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

Question 10

What considerations are there when choosing which region to use? (choose 2)

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

Answer: 1,3

Explanation:

- You may choose a region to reduce latency, minimize costs, or address regulatory requirements
- 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
- Pricing for AWS services is in USD

References:

- https://docs.aws.amazon.com/emr/latest/ManagementGuide/emr-plan-region.html
- https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/aws-global-infrastructure/

Question 11

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

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

Answer: 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
- AWS CloudTrail is a web service that records activity made on your account and delivers log files to an Amazon S3 bucket
- CloudFormation is used for automated provisioning of infrastructure
- CloudFront is a content delivery network (CDN) that caches content

References:

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

Question 12

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. Disposable resources
4. High availability

Answer: 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
- Fault tolerance and high availability are mechanisms used for ensuring the availability of your application and protecting against the failure of hardware or software components
- Disposable resources is an architectural principle in which servers and other components are treated as temporary resources and are replaced rather than updated

References:

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

Question 13

Which items can be configured from within the VPC management console? (choose 2)

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

Answer: 1,5

Explanation:

- Subnets and Security groups can be configured from within the VPC console
- Regions are not configured, resources within regions are configured
- Load balancing and auto scaling is configured from the EC2 console

References:

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

Question 14

Which services are integrated with KMS encryption? (choose 2)

1. Amazon RDS
2. Amazon EC2
3. Amazon EBS
4. Amazon SWF
5. AWS CloudFormation

Answer: 1,3

Explanation:

- Not all services integrate with KMS. Review the reference below

References:

- https://aws.amazon.com/kms/features/

Question 15

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

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

Answer: 3

Explanation:

- 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
- Amazon ELB distributes incoming requests to EC2 instances. It can be used in conjunction with Auto Scaling
- AWS Elasticache provides in-memory cache and database services
- Amazon DynamoDB is a NoSQL database

References:

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

Question 16

The AWS global infrastructure is composed of? (choose 2)

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

Answer: 1,4

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

References:

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

Question 17

Which of the statements below is accurate regarding Amazon S3 buckets? (choose 2)

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

Answer: 3,4

Explanation:

- 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)
- Objects within a bucket are replicated within a region across multiple AZs (except for the One-Zone IA class)
- You cannot create nested buckets

References:

- https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/aws-storage/
- https://digitalcloud.training/certification-training/aws-solutions-architect-associate/storage/amazon-s3/

Question 18

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

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

Answer: 2

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
- 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
- S3 is an object storage system and cannot be mounted and used as a virtual hard drive
- Glacier is an archiving solution where you can archive your S3 objects at extremely low cost

References:

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

Question 19

Under the AWS shared responsibility model what is the customer responsible for? (choose 2)

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

Answer: 3,5

Explanation:

- AWS are responsible for "Security **of** the Cloud"
- 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

References:

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

Question 20

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

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

Answer: 3

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)
- 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
- Amazon CloudWatch Logs lets you monitor and troubleshoot your systems and applications using your existing system, application and custom log files

References:

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

Question 21

The IAM service can be used to manage which objects? (choose 2)

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

Answer: 2,3

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
- Security groups and network ACLs are used as instance-level and subnet-level firewalls respectively
- 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://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/identity-and-access-management/
- https://docs.aws.amazon.com/IAM/latest/UserGuide/access_policies.html

Question 22

Which types of pricing policies does AWS offer? (choose 2)

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

Answer: 1,5

Explanation:

- Amazon pricing includes options for pay-as-you-go, save when you reserve and pay less by using more
- Amazon does not offer ELAs, non-peak hour discounts, or global usage discounts

References:

- https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/aws-billing-and-pricing/
- https://aws.amazon.com/pricing/

Question 23

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

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

Answer: 3

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
- 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 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 (or are forecasted to exceed) your budgeted amount

References:

- https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/aws-billing-and-pricing/
- https://aws.amazon.com/aws-cost-management/aws-budgets/

Question 24

What advantages do you get from using the AWS cloud? (choose 2)

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

Answer: 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 centres
- 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

References:

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

Question 25

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

1. VPC Peering
2. Internet Gateway
3. Direct Connect
4. Elastic Network Interface

Answer: 3

Explanation:

- 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
- VPC peering is a way of allowing routing between VPCs in different AWS accounts
- An Internet Gateway is used to connect public subnets to the Internet (egress)
- An Elastic Network Interface (ENI) is a logical networking component in a VPC that represents a virtual network card

References:

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

Question 26

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

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

Answer: 1

Explanation:

- Amazon Route 53 is a highly available and scalable Domain Name System (DNS) service
- A hosted zone is a collection of records for a specified domain in Route 53
- CloudFront is a content delivery network (CDN) that allows you to store (cache) your content at "edge locations" located around the world
- Simple Notification Service is used to send notifications over multiple transport protocols

References:

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

Question 27

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

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

Answer: 4

Explanation:

- An AWS managed VPN can be used to quickly connect from an office to an Amazon VPC
- Direct Connect provides high-bandwidth, low-latency connectivity but takes weeks to months to setup (and is much more expensive)
- An Internet Gateway is used to connect a public subnet to the Internet (egress)
- A Route Table is part of a VPC and is used to control how traffic is routed within the VPC

References:

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

Question 28

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

Answer: 1

Explanation:

- A VPC spans all availability zones within a region
- VPCs do not span regions, you create VPCs in each region
- VPCs are not limited by subnets, subnets are created within AZs and you can have many subnets in an AZ
- An AZ uses one or more data centers. AWS does not publicize the details

References:

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

Question 29

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

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

4. Amazon RDS

Answer: 2

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
- Amazon Elastic Block Storage (EBS) provides storage volumes for EC2 instances
- Amazon Elastic File System (EFS) provides an NFS filesystem for usage by EC2 instances
- Amazon Relational Database Service (RDS) provides a managed relational database service

References:

- https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/notification-services/

Question 30

Which type of Amazon Elastic Load Balancer operates at layer 7 of the OSI model?

1. Application Load Balancer
2. Network Load Balancer
3. Classic Load Balancer
4. F5 Load Balancer

Answer: 1

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
- An F5 load balancer is not an Amazon load balancer

References:

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

Question 31

Which services can help to automate a company's IT infrastructure? (choose 2)

1. Amazon CloudWatch Alarms
2. Amazon Route 53
3. AWS Lambda Scheduled Events
4. Virtual Private Cloud
5. Elastic Network Interface

Answer: 1,3

Explanation:

- Amazon CloudWatch Alarms – You can create a CloudWatch alarm that sends an Amazon Simple Notification Service (Amazon SNS) message when a particular metric goes beyond a specified threshold for a specified number of periods
- AWS Lambda Scheduled events – These events allow you to create a Lambda function and direct AWS Lambda to execute it on a regular schedule
- Amazon Route 53 is a DNS service and does not offer automation
- A VPC is a logical networking construct and is not an example of automation
- An ENI is a logical network adapter and is not an example of automation

References:

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

Question 32

Which database service is a NoSQL type of database that is fully managed?

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

Answer: 2

Explanation:

- DynamoDB is Amazon's fully managed non-relational database service
- Amazon RDS is a relational (SQL) type of database
- Amazon RedShift is a data warehouse that can be analyzed using SQL tools
- Elasticache is a data caching service that is used to help improve performance

References:

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

Question 33

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

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

Answer: 3

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
- Amazon Elastic Block Storage provides block-level volumes to individual EC2 instances (cannot connect multiple instances to a single EBS volume)
- Amazon S3 is an object storage system and Glacier is used for archiving S3 objects

References:

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

Question 34

For which services does Amazon not charge customers? (choose 2)

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

Answer: 1,3

Explanation:

- Amazon VPC and CloudFormation are free of charge, however in the case of CloudFormation you pay for the resources it creates
- All other listed services are chargeable

References:

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

Question 35

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

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

Answer: 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

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

References:

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

Question 36

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. Basic
2. Developer
3. Business
4. Enterprise

Answer: 3

Explanation:

- Basic does not provide any technical support
- Developer provides business hours access via email
- Business provides < 1-hour response times for a production system failure
- Enterprise provides < 1-hour response times for a production system failure but is a more expensive

References:

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

Question 37

Which AWS database service supports complex queries and joins and is suitable for a transactional database deployment?

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

Answer: 1

Explanation:

- Amazon RDS supports complex queries and joins and is suitable for a transactional database deployment
- Amazon DynamoDB is a NoSQL database and does not support to complex queries and joins
- Amazon RedShift is a data warehouse used for analytic not transactional databases
- Amazon EMR is a Hadoop service that is not suitable for transactional databases

References:

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

Question 38

Under the shared responsibility model, what are examples of shared controls? (choose 2)

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

Answer: 1,4

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
- Service and Communications Protection is an example of a customer specific control
- Storage system patching is an AWS responsibility

- Physical and Environmental controls is an example of an inherited control (a customer fully inherits from AWS)

References:

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

Question 39

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

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

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. 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
- 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 (or are forecasted to exceed) your budgeted amount

References:

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

Question 40

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

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

Answer: 2

Explanation:

- Spot instances are good for short term requirements as they can be very economical. Sometimes AWS may terminate your instance, e.g. when the market price exceeds your bid price. This is a good option for non-critical workloads that can be terminated
- On-Demand is not the most economical option
- 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
- Dedicated hosts provide a full server dedicated to a single customer and is therefore expensive

References:

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

Question 41

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

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

Answer: 3

Explanation:

- AWS Lambda is a serverless computing technology that allows you to run code without provisioning or managing servers
- Lambda is a serverless computing technology that allows you to run code without provisioning or managing servers
- 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
- 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://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/aws-compute/

Question 42

What benefits does Amazon EC2 provide over using non-cloud servers? (choose 2)

1. Complete control of the hypervisor layer
2. Elastic web-scale computing
3. Inexpensive
4. Fault tolerance
5. High-availability with an SLA of 99.99%

Answer: 2,3

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
- Amazon EC2 does not provide any control of the hypervisor or underlying hardware infrastructure
- Amazon does not offer fault tolerance for EC2, you need to design this into your application stack (and assume things will fail)

- EC2 offers a highly reliable environment where replacement instances can be rapidly and predictably commissioned with SLAs of **95%** for each region

References:

- https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/cloud-computing-concepts/
- https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/architecting-for-the-cloud/

Question 43

Which type of Elastic Load Balancer operates at the connection layer (layer 4) and supports IP addresses as targets?

1. Application Load Balancer
2. Network Load Balancer
3. Classic Load Balancer
4. ELBs do not support IP addresses as targets

Answer: 2

Explanation:

- Network Load Balancer (NLB) – layer 4 load balancer that routes connections based on IP protocol data
- The NLB and ALB support IP addresses as targets but only the NLB operates at layer 4
- Application Load Balancer (ALB) – layer 7 load balancer that routes connections based on the content of the request
- 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/
- https://digitalcloud.training/certification-training/aws-solutions-architect-associate/compute/elastic-load-balancing/

Question 44

Which of the following are features of Amazon CloudWatch? (choose 2)

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

Answer: 1,4

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)
- CloudWatch is used to collect and track metrics, collect and monitor log files, and set alarms
- 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
- CloudTrail records account activity and service events from most AWS services

References:

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

Question 45

Amazon S3 bucket names must follow as set of rules. Which of the rules below apply to Amazon S3 bucket names? (choose 2)

1. Names must be unique across all of AWS
2. Names must be 3 to 63 characters in length
3. Names must contain uppercase letters
4. Names must be unique within a region
5. Names must be formatted as a DNS domain name

Answer: 1,2

Explanation:

- Bucket names must follow the following rules:
- - Names must be unique across all of AWS
- - Names must be 3 to 63 characters in length
- - Names can only contain lowercase letters, numbers and hyphens
- - Names cannot be formatted as an IP address

References:

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

Question 46

Which of the following statements are correct about Elastic Block Store (EBS) volumes? (choose 2)

1. Root EBS volumes are retained on termination by default
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. You can attach an EBS volume to multiple instances
5. EBS volumes cannot be backed up

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
- Root EBS volumes are deleted on termination by default
- You cannot attach an EBS volume to multiple instances
- EBS volumes can be backed up by taking a snapshot

References:

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

Question 47

Which statement below is incorrect in relation to Security Groups?

1. Operate at the instance level
2. Support allow rules only
3. Stateless
4. Evaluate all rules

Answer: 3

Explanation:

- 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

References:

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

Question 48

What constraints apply to customers when performing penetration testing? (choose 2)

1. Permission is required for all penetration tests
2. You can perform penetration testing on your own systems at any time without prior authorization
3. You must complete and submit the AWS Vulnerability / Penetration Testing Request Form to request authorization
4. Penetration testing can be performed against any AWS resources
5. Penetration testing must be performed by a certified security consultant

Answer: 1,3

Explanation:

- Penetration testing is the practice of testing one's own application's security for vulnerabilities by simulating an attack. AWS allows penetration testing; however, you must request permission from AWS
- Permission is required for all penetration tests

- You must complete and submit the AWS Vulnerability / Penetration Testing Request Form to request authorization for penetration testing to or originating from any AWS resources
- There is a limited set of resources on which penetration testing can be performed

References:

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

Question 49

Which statement below is incorrect in relation to Network ACLs?

1. Operate at the Availability Zone level
2. Support allow and deny rules
3. Stateless
4. Process rules in order

Answer: 1

Explanation:

- Network ACLS operate at the **subnet** level

References:

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

Question 50

What benefits are provided by Amazon CloudFront? (choose 2)

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

Answer: 2,4

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)

References:

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

Question 51

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

1. AWS KMS
2. AWS SMS
3. AWS DMS
4. AWS Migration Hub

Answer: 3

Explanation:

- AWS Database Migration Service helps you migrate databases to AWS quickly and securely
- 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
- AWS Key Management Service (KMS) is used for managing encryption keys
- AWS Migration Hub provides a single location to track the progress of application migrations across multiple AWS and partner solutions

References:

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

Question 52

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

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

Answer: 2

Explanation:

- 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
- IAM Roles are created and then "assumed" by trusted entities and define a set of permissions for making AWS service requests
- IAM Groups are collections of users and have policies attached to them
- 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 53

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

Answer: 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

References:

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

Question 54

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

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

Answer: 2

Explanation:

- IAM is used to securely control individual and group access to AWS resources
- IAM can be used to manage multi-factor authentication
- 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)
- 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
- Amazon EC2 is used for running operating systems instances in the cloud

References:

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

Question 55

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

Answer: 1

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
- AWS Elastic Beanstalk can be used to quickly deploy and manage applications in the AWS Cloud
- ELB is used to distribute incoming connections to EC2 instances and Auto Scaling is used to automatically ensure the right number of EC2 instances are available to service current load

References:

- https://digitalcloud.training/certification-training/aws-solutions-architect-associate/media-services/amazon-elastic-transcoder/

Question 56

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

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

Answer: 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
- There is no backup console to take full and incremental backups
- There is no way of taking application-consistent backups using any AWS tools
- Cross Region Replication is used to replicate Amazon S3 buckets are across regions

References:

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

Question 57

What are two ways that moving to an AWS cloud can benefit an organization? (choose 2)

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

Answer: 2,3

Explanation:

- 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
- 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
- Cloud is based on an operational expenditure (OPEX) model, not a capital expenditure (CAPEX) model

- Cloud does not provide the ability to depreciate assets over a longer timeframe as you generally do not own the assets
- 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://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/cloud-computing-concepts/

Question 58

Which of the following statements is correct in relation to consolidated billing? (choose 2)

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

Answer: 1,3

Explanation:

- AWS organizations allow you to consolidate multiple AWS accounts into an organization that you create and centrally manage
- Note that it allows you to consolidate billing across accounts within an organization not across organizations
- Volume pricing discounts can be applied to resources
- Consolidated billing is available to all customers

References:

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

Question 59

Which AWS service allows you to use block-based volumes on-premise that are then asynchronously backed up to Amazon S3?

1. AWS Storage Gateway File Gateway
2. AWS Storage Gateway Volume Gateway
3. Amazon S3 Multi-Part upload
4. Amazon S3 Transfer Acceleration

Answer: 2

Explanation:

- AWS Storage Gateway Volume Gateway represents the family of gateways that support block-based volumes, previously referred to as gateway-cached and gateway-stored mode
- AWS Storage Gateway Volume Gateway operates in 2 modes:
- - Stored Volume mode – the entire dataset is stored on-site and is asynchronously backed up to S3 (EBS point-in-time snapshots). Snapshots are incremental and compressed
- - Cached Volume mode – the entire dataset is stored on S3 and a cache of the most frequently accessed data is cached on-site
- AWS Storage Gateway File Gateway provides a virtual on-premises file server, which enables you to store and retrieve files as objects in Amazon S3
- Multi-part upload and transfer acceleration are features of S3 associated with uploading files directly to S3

References:

- https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/additional-aws-services-tools/
- https://digitalcloud.training/certification-training/aws-solutions-architect-associate/storage/aws-storage-gateway/

Question 60

When instantiating compute resources, what are two techniques for using automated, repeatable processes that are fast and avoid human error? (choose 2)

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

Answer: 2,4

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
- Snapshotting is about saving data, not instantiating resources. Fault tolerance is a method of increasing the availability of your system when components fail. Performance monitoring has nothing to do with instantiating resources

References:

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

Question 61

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

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

Answer: 4

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
- 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
- AWS Identity and Access Management (IAM) enables you to manage access to AWS services and resources securely
- The AWS Cost Explorer is a free tool that allows you to view charts of your costs

References:

- https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/aws-billing-and-pricing/
- https://docs.aws.amazon.com/organizations/latest/userguide/orgs_getting-started_concepts.html

Question 62

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

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

Answer: 1

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
- AWS Service Catalog allows organizations to create and manage catalogs of IT services that are approved for use on AWS
- AWS Config is a service that enables you to assess, audit, and evaluate the configurations of your AWS resource
- 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://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/additional-aws-services-tools/
- https://aws.amazon.com/opsworks/chefautomate/features/

Question 63

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

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

Answer: 4

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
- 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
- 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
- Amazon Athena is an interactive query service that makes it easy to analyze data in Amazon S3 using standard SQL

References:

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

Question 64

Which feature of Amazon Rekognition can assist with saving time?

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

Answer: 1

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
- 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
- Amazon Transcribe is an automatic speech recognition (ASR) service that makes it easy for developers to add speech-to-text capability to their applications
- 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

References:

- https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/additional-aws-services-tools/
- https://aws.amazon.com/rekognition/

Question 65

Which type of cloud deployment enables customers to leverage the benefits of the public cloud and co-existing with on-premises infrastructure?

1. Public Cloud
2. Private Cloud
3. Hybrid Cloud
4. Legacy IT Infrastructure

Answer: 3

Explanation:

- A hybrid deployment is a way to connect infrastructure and applications between cloud-based resources and existing resources that are not located in the cloud. The most common method of hybrid deployment is between the cloud and existing on-premises infrastructure to extend, and grow, an organization's infrastructure into the cloud while connecting cloud resources to the internal system
- A cloud-based application is fully deployed in the cloud and all parts of the application run in the cloud. Applications in the cloud have either been created in

the cloud or have been migrated from an existing infrastructure to take advantage of the benefits of cloud computing

- The deployment of resources on-premises, using virtualization and resource management tools, is sometimes called the “private cloud.” On-premises deployment doesn’t provide many of the benefits of cloud computing but is sometimes sought for its ability to provide dedicated resources
- Legacy IT infrastructure is not a cloud model. Typically, this includes systems that either not virtualized or do not have a cloud management layer

References:

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