

# **SET 1: PRACTICE QUESTIONS,**

## **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](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 loose coupling includes "well-defined interfaces" which reduce interdependencies in a system by enabling interaction only through specific, technology-agnostic interfaces (e.g. RESTful APIs)

**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 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](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/>

# **SET 2: PRACTICE QUESTIONS,**

## **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](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 of 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](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](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 and 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 balancer 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](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 52 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](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](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/>

# **SET 3: PRACTICE QUESTIONS,**

## **ANSWERS & EXPLANATIONS**

### **Question 1**

Which of the options below are recommendations in the performance efficiency pillar of the well-architected framework? (choose 2)

1. Democratize advanced technologies
2. Go global in days
3. Use serverless architectures
4. Rarely experiment
5. Mechanical complexity

Answer: 1,3

#### **Explanation:**

- The performance efficiency pillar includes the ability to use computing resources efficiently to meet system requirements and to maintain that efficiency as demand changes and technologies evolve
- There are five design principles for performance efficiency in the cloud:
  - - Democratize advanced technologies
  - - Go global in minutes
  - - Use serverless architectures
  - - Experiment more often
  - - Mechanical sympathy

#### **References:**

- <https://aws.amazon.com/blogs/apn/the-5-pillars-of-the-aws-well-architected-framework/>
- <https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/architecting-for-the-cloud/>

## **Question 2**

What are Edge locations used for?

1. They are used for terminating VPN connections
2. They host a CDN called CloudFront
3. They are the public-facing APIs for Amazon S3
4. They are used by regions for inter-region connectivity

Answer: 2

### **Explanation:**

- An edge location is used by CloudFront as is the location where content is cached (separate to AWS regions/AZs). Requests are automatically routed to the nearest edge location. Edge locations are not tied to Availability Zones or regions

### **References:**

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

## **Question 3**

What is required to enable an EC2 instance in a public subnet to access the Internet? (choose 2)

1. A public IP address
2. A NAT Gateway
3. A NAT Instance
4. A VPN connection
5. A route to an Internet Gateway

Answer: 1,5

### **Explanation:**



- A public subnet is a subnet that is configured to assign public IP addresses to instances and which has a route to an Internet Gateway (which is created at the VPC level) configured in the route table
- NAT instances and NAT gateways are used by EC2 instances in private subnets (without public IPs) to access the Internet
- A VPN connection is used to establish a secure connection between the AWS cloud and an on-premise data center or other cloud location. They are not used to access the Internet

**References:**

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

## **Question 4**

What types of origins are supported by Amazon CloudFront? (choose 2)

1. EBS volume
2. S3 object
3. Elastic Load Balancer
4. EC2 instance
5. Elastic File System

Answer: 3,4

**Explanation:**

- An origin is the origin of the files that the CDN will distribute. Origins can be either an S3 bucket, an EC2 instance, an Elastic Load Balancer, or Route 53 – can also be external (non-AWS)

**References:**

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

## **Question 5**

Which feature enables fast, easy, and secure transfers of files over long distances between a client and an Amazon S3 bucket?

1. S3 Static Websites
2. S3 Copy
3. Multipart Upload
4. S3 Transfer Acceleration

Answer: 4

### **Explanation:**

- Amazon S3 Transfer Acceleration enables fast, easy, and secure transfers of files over long distances between your client and your Amazon S3 bucket. S3 Transfer Acceleration leverages Amazon CloudFront's globally distributed AWS Edge Locations
- With S3 copy you can create a copy of objects up to 5GB in size in a single atomic operation
- Multipart upload can be used to speed up uploads to S3
- S3 can also be used to host static websites

### **References:**

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

## **Question 6**

How is data protected by default in Amazon S3?

1. Buckets are replicated across all regions
2. Objects are redundantly stored on multiple devices across multiple facilities within a region
3. Objects are redundantly stored on multiple devices across multiple facilities across all regions
4. Objects are copied across at least two Availability Zones per region

Answer: 2

**Explanation:**

- Amazon S3 provides a highly durable storage infrastructure designed for mission-critical and primary data storage. Objects are redundantly stored on multiple devices across multiple facilities in an Amazon S3 region
- Amazon does not specify how data is replicated across AZs, they use the term facilities instead

**References:**

- <https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/aws-storage/>
- <https://docs.aws.amazon.com/AmazonS3/latest/dev/DataDurability.html>

## **Question 7**

Which of the options below are recommendations in the cost optimization pillar of the well-architected framework? (choose 2)

1. Adopt a consumption model
2. Adopt a capital expenditure model
3. Start spending money on data center operations
4. Analyze and attribute expenditure
5. Manage your services independently

Answer: 1,4

**Explanation:**

- The cost optimization pillar includes the ability to avoid or eliminate unneeded cost or suboptimal resource
- There are five design principles for cost optimization in the cloud:

- - Adopt a consumption model
- - Measure overall efficiency
- - Stop spending money on data center operations
- - Analyze and attribute expenditure
- - Use managed services to reduce cost of ownership

**References:**

- <https://aws.amazon.com/blogs/apn/the-5-pillars-of-the-aws-well-architected-framework/>
- <https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/architecting-for-the-cloud/>

## **Question 8**

Which pricing options are available when using Amazon EC2 Reserved Instances? (choose 2)

1. Capacity upfront
2. All upfront
3. Mainly upfront
4. Partial upfront
5. Enterprise upfront

Answer: 2,4

**Explanation:**

- Amazon EC2 Reserved Instances (RI) provide a significant discount (up to 75%) compared to On-Demand pricing and provide a capacity reservation when used in a specific Availability Zone
- Payment options include All Upfront, Partial Upfront, and No Upfront

**References:**

- <https://aws.amazon.com/ec2/pricing/reserved-instances/>

## **Question 9**

Which data consistency models are available with Amazon S3? (choose 2)

1. Eventual consistency for PUTS of new objects
2. Read after write consistency for PUTS of new objects
3. Eventual consistency for overwrite PUTS and DELETES
4. Read after write consistency for overwrites PUTS and DELETES
5. Accelerated consistency for all PUTS and DELETES

Answer: 2,3

### **Explanation:**

- Data consistency models available are:
  - - Read after write consistency for PUTS of new objects
  - - Eventual consistency for overwrite PUTS and DELETES (takes time to propagate)

### **References:**

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

## **Question 10**

Which Amazon EC2 Reserved Instance type enables you to match your capacity reservation to predictable recurring dates and times?

1. Standard RI
2. Convertible RI
3. Scheduled RI
4. Customized RI

Answer: 3

**Explanation:**

- With RIs, you can choose the type that best fits your applications needs.
- **Standard RIs:** These provide the most significant discount (up to 75% off On-Demand) and are best suited for steady-state usage
- **Convertible RIs:** These provide a discount (up to 54% off On-Demand) and the capability to change the attributes of the RI as long as the exchange results in the creation of Reserved Instances of equal or greater value. Like Standard RIs, Convertible RIs are best suited for steady-state usage
- **Scheduled RIs:** These are available to launch within the time windows you reserve. This option allows you to match your capacity reservation to a predictable recurring schedule that only requires a fraction of a day, a week, or a month

**References:**

- <https://aws.amazon.com/ec2/pricing/reserved-instances/>

**Question 11**

Which information security standard applies to entities that store, process or transmit credit cardholder data?

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

Answer: 4

**Explanation:**

- The Payment Card Industry Data Security Standard (PCI DSS) is a proprietary information security standard administered by the PCI Security Standards Council

- 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
- The National Institute of Standards and Technology (NIST) 800-53 security controls are generally applicable to US Federal Information Systems
- ISO/IEC 27001:2013 is a security management standard that specifies security management best practices and comprehensive security controls following the ISO/IEC 27002 best practice guidance

**References:**

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

## **Question 12**

Which Amazon RDS database engines support AWS RDS Read Replicas?  
(choose 2)

1. Oracle
2. MySQL
3. PostgreSQL
4. Microsoft SQL Server
5. DynamoDB

Answer: 2,3

**Explanation:**

- Read replicas are available for MySQL, PostgreSQL, MariaDB and Aurora (not SQL Server or Oracle)
- DynamoDB is not a type of RDS database and does not support read replicas

**References:**

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

## **Question 13**

Which Amazon RDS feature enables disaster recovery by creating a replica in another Availability Zone and synchronously replicating data to it?

1. Read Replica
2. Multi-AZ
3. DB mirroring
4. Log shipping

Answer: 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 and log shipping are not Amazon RDS features, they are methods of replicating data using native database technologies (rather than AWS technology)

### **References:**

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

## **Question 14**

When deploying resources using AWS CloudFormation, what are you charged for? (choose 2)

1. Per-usage costs for CloudFormation
2. Provisioned EC2 instances
3. Provisioned EBS volumes



4. Provisioned route tables
5. AWS Auto Scaling Groups

Answer: 2,3

**Explanation:**

- You do not pay for AWS CloudFormation, just for the chargeable resources that it provisions
- EC2 instances and EBS volumes both incur costs
- Route tables and Auto Scaling Groups do not incur costs

**References:**

- <https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/additional-aws-services-tools/>
- <https://digitalcloud.training/certification-training/aws-solutions-architect-associate/management-tools/aws-cloudformation/>

## **Question 15**

Which statement best describes elasticity in the cloud?

1. The ability to scale resources up or down and only pay for what you use
2. The ability for a system to recover from the failure of a single component
3. A flexible model of code development that results in faster deployment times
4. A pricing model that allows upfront payments and term commitments to reduce cost

Answer: 1

**Explanation:**

- Elasticity is the ability to scale resources up or down and only pay for what you use. A great example is Auto Scaling which adds and removes EC2 instances based on the amount of load

### References:

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

## **Question 16**

What are the advantages of Availability Zones? (choose 2)

1. They allow regional disaster recovery
2. They provide fault isolation
3. They enable the caching of data for faster delivery to end users
4. They are connected by low-latency network connections
5. They enable you to connect your on-premises networks to AWS to form a hybrid cloud

Answer: 2,4

### **Explanation:**

- Each AWS region contains multiple distinct locations called Availability Zones (AZs). Each AZ is engineered to be isolated from failures in other AZs. An AZ is a data center, and in some cases, an AZ consists of multiple data centers. AZs within a region provide inexpensive, low-latency network connectivity to other zones in the same region. This allows you to replicate your data across data centers in a synchronous manner so that failover can be automated and be transparent for your users
- An AZ enables fault tolerance and high availability for your applications within a region not across regions
- CloudFront is the technology that is used to enable caching of data for faster delivery to end users
- Direct Connect is the technology that is used to connect your on-premises network to AWS to form a hybrid cloud

**References:**

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

**Question 17**

Which AWS service can be used to ensure the persistence of in-flight transactions independently of any single application component?

1. AWS CloudFormation
2. Amazon DynamoDB
3. AWS ElastiCache
4. Amazon SQS

Answer: 4

**Explanation:**

- Amazon Simple Queue Service (SQS) is a fully managed message queuing service that enables you to decouple and scale microservices, distributed systems, and serverless applications
- SQS eliminates the complexity and overhead associated with managing and operating message oriented middleware, and empowers developers to focus on differentiating work
- In-flight messages are messages that have been picked up by a consumer but not yet deleted from the queue

**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-sqs/>

**Question 18**

Which of the below AWS services supports automated backups as a default configuration?

1. Amazon S3
2. Amazon RDS
3. Amazon EC2
4. Amazon EBS

Answer: 2

**Explanation:**

- RDS automated backups allow point in time recovery to any point within the retention period down to a second. When automated backups are turned on for your DB Instance, Amazon RDS automatically performs a full daily snapshot of your data (during your preferred backup window) and captures transaction logs (as updates to your DB Instance are made). Automated backups are enabled by default and data is stored on S3 and is equal to the size of the DB
- EC2 instances using EBS volumes can be backed up by creating a snapshot of the EBS volume
- Amazon S3 objects are replicated across multiple facilities. You can also archive data onto Amazon Glacier and use versioning to maintain copies of older versions of objects

**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 19**

How can you ensure that the EBS volumes attached to an EC2 instance are still available after the instance is terminated?

1. EBS volumes automatically persist after the EC2 instance is terminated
2. EBS volumes are always deleted when an EC2 instance is terminated
3. Ensure the “DeleteOnTermination” attribute of the EBS volume is set to false while launching the instance
4. Take a snapshot of the EBS volume

Answer: 3

**Explanation:**

- Root EBS volumes are deleted on termination by default
- Extra non-boot volumes are not deleted on termination by default
- The behavior can be changed by altering the “DeleteOnTermination” attribute

**References:**

- <https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/aws-storage/>
- <https://digitalcloud.training/certification-training/aws-solutions-architect-associate/compute/amazon-ebs/>

## **Question 20**

Which EC2 tenancy model gives you visibility and control over how instances are placed on a server?

1. Dedicated Instances
2. Dedicated Hosts
3. Dedicated Tenancy
4. Dedicated EC2

Answer: 2

**Explanation:**

- A Dedicated Host is also a physical server that's dedicated for your use. With a Dedicated Host, you have visibility and control over how instances are placed on the server
- Dedicated Instances are Amazon EC2 instances that run in a virtual private cloud (VPC) on hardware that's dedicated to a single customer
- Dedicated tenancy ensures all EC2 instances that are launched in a VPC run on hardware that's dedicated to a single customer
- Dedicated EC2 is not an available tenancy model

**References:**

- <https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/dedicated-instance.html>

**Question 21**

How does the consolidated billing feature of AWS Organizations treat Reserved Instances that were purchased by another account in the organization?

1. All accounts in the organization are treated as one account so any account can receive the hourly cost benefit
2. Only the master account can benefit from the hourly cost benefit of the reserved instances
3. All accounts in the organization are treated as one account for volume discounts but not for reserved instances
4. AWS Organizations does not support any volume or reserved instance benefits across accounts, it is just a method of aggregating bills

Answer: 1

**Explanation:**

- For billing purposes, the consolidated billing feature of AWS Organizations treats all the accounts in the organization as one

account. This means that all accounts in the organization can receive the hourly cost benefit of Reserved Instances that are purchased by any other account

**References:**

- <https://docs.aws.amazon.com/awsaccountbilling/latest/aboutv2/ri-behavior.html>

## **Question 22**

What is the best way to apply an organizational system to EC2 instances so they can be identified by descriptors such as purpose or department?

1. Use descriptive hostnames
2. Organize the instances into separate subnets
3. Apply tags
4. Use the instance meta-data

Answer: 3

**Explanation:**

- To help you manage your instances, images, and other Amazon EC2 resources, you can optionally assign your own metadata to each resource in the form of A tag 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
- Using descriptive hostnames or organizing instances into separate subnets is a messy way to try and organize resources and lacks the power and flexibility of tagging
- Storing information in instance meta-data is possible but you need to retrieve the information, tags enable you to do this more easily

**References:**

- [https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/Using\\_Tags.html](https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/Using_Tags.html)

## **Question 23**

Which services provide protection measures against distributed denial of service (DDoS) attacks? (choose 2)

1. AWS CloudHSM
2. Amazon CloudFront
3. AWS WAF
4. Internet Gateway
5. Managed VPN

Answer: 2,3

### **Explanation:**

- AWS offers globally distributed, high network bandwidth and resilient services that, when used in conjunction with application-specific strategies, are key to mitigating DDoS attacks
- AWS WAF is a web application firewall that helps protect web applications from common web exploits that could affect application availability, compromise security, or consume excessive resources
- Amazon CloudFront distributes traffic across multiple edge locations and filters requests to ensure that only valid HTTP(S) requests will be forwarded to backend hosts. CloudFront also supports geo-blocking, which you can use to prevent requests from particular geographic locations from being served
- Internet Gateways, Managed VPN and CloudHSM do not help to mitigate DDoS attacks

### **References:**

- <https://aws.amazon.com/answers/networking/aws-ddos-attack-mitigation/>



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

## **Question 24**

Which service can be used to create sophisticated, interactive graph applications?

1. Amazon RedShift
2. Amazon Neptune
3. AWS X-Ray
4. Amazon Athena

Answer: 2

### **Explanation:**

- Amazon Neptune is a fast, reliable, fully-managed graph database service that makes it easy to build and run applications that work with highly connected datasets. With Amazon Neptune, you can create sophisticated, interactive graph applications that can query billions of relationships in milliseconds
- 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
- AWS X-Ray helps developers analyze and debug production, distributed applications, such as those built using a microservices architecture
- 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 25**

Which of the below is a fully managed Amazon search service based on open source software?

1. Amazon Elastic Beanstalk
2. AWS OpsWorks
3. Amazon CloudSearch
4. Amazon Elasticsearch

Answer: 4

### **Explanation:**

- Amazon Elasticsearch Service is a fully managed service that makes it easy for you to deploy, secure, operate, and scale Elasticsearch to search, analyze, and visualize data in real-time. Elasticsearch is based on open source software
- Amazon CloudSearch is a managed service in the AWS Cloud that makes it simple and cost-effective to set up, manage, and scale a search solution for your website or application
- AWS OpsWorks is a configuration management service that provides managed instances of Chef and Puppet
- AWS Elastic Beanstalk is the fastest and simplest way to get web applications up and running on AWS. Developers simply upload their application code and the service automatically handles all the details such as resource provisioning, load balancing, auto-scaling, and monitoring

### **References:**

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

## **Question 26**

Which descriptions are correct regarding cloud deployment models?  
(choose 2)

1. With the public cloud the consumer organization typically owns and manages the infrastructure
2. With the private cloud the consumer organization typically incurs OPEX costs for usage
3. With the hybrid cloud, multiple private clouds are connected
4. With the public cloud the consumer organization typically incurs OPEX costs for usage
5. With the private cloud the consumer organization typically owns and manages the infrastructure

Answer: 4,5

**Explanation:**

- With public cloud the consumer organization typically incurs OPEX costs as they do not own the infrastructure and just pay usage costs
- With the private cloud the consumer organization typically owns the infrastructure and will often manage it themselves or use a third-party organization to manage it for them. This model is largely CAPEX driven
- Hybrid clouds are created when you connect private and public clouds together

**References:**

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

## **Question 27**

When using Amazon IAM, what authentication methods are available to use? (choose 2)

1. Client certificates
2. Access keys
3. Amazon KMS

4. Server certificates
5. AES 256

Answer: 2,4

**Explanation:**

- Supported authentication methods include console passwords, access keys and server certificates
- Access keys are a combination of an access key ID and a secret access key and can be used to make programmatic calls to AWS
- Server certificates are SSL/TLS certificates that you can use to authenticate with some AWS services
- Client certificates are not a valid IAM authentication method
- Amazon Key Management Service (KMS) is used for managing encryption keys and is not used for authentication
- AES 256 is an encryption algorithm, not an authentication method

**References:**

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

## **Question 28**

To ensure the security of your AWS account, what are two AWS best practices for managing access keys? (choose 2)

1. Don't create any access keys, use IAM roles instead
2. Don't generate an access key for the root account user
3. Where possible, use IAM roles with temporary security credentials
4. Rotate access keys daily
5. Use MFA for access keys

Answer: 2,3

**Explanation:**

- Best practices include:
- - Don't generate an access key for the root account user
- - Use Temporary Security Credentials (IAM Roles) Instead of Long-Term Access Keys
- - Manage IAM User Access Keys Properly
- Rotating access keys is a recommended practice, but doing it daily would be excessive and hard to manage
- You can use MFA for securing privileged accounts, but it does not secure access keys
- You should use IAM roles where possible, but AWS do not recommend that you don't create any access keys as they also have a purpose

**References:**

- <https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/identity-and-access-management/>
- <https://docs.aws.amazon.com/general/latest/gr/aws-access-keys-best-practices.html>

## **Question 29**

Which AWS database service provides a fully managed data warehouse that can be analyzed using SQL tools and business intelligence tools?

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

Answer: 3

**Explanation:**

- RedShift is a fully managed data warehouse service designed to handle petabytes of data for analysis. Data can be analyzed with standard SQL tools and business intelligence tools. RedShift allows you to run complex analytic queries against petabytes of structured data
- RDS is Amazon's transactional relational database
- DynamoDB is Amazon's non-relational database service
- ElastiCache is a data caching service that is used to help improve the speed/performance of web applications running on AWS

### References:

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

## **Question 30**

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

1. AWS Elastic Beanstalk
2. AWS CloudFormation
3. AWS Systems Manager
4. AWS OpsWorks

Answer: 4

### **Explanation:**

- AWS OpsWorks is a configuration management service that provides managed instances of Chef and Puppet
- OpsWorks lets you use Chef and Puppet to automate how servers are configured, deployed, and managed across your Amazon EC2 instances or on-premises compute environments
- OpsWorks is an automation platform that transforms infrastructure into code

- Automates how applications are configured, deployed and managed

### References:

- <https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/additional-aws-services-tools/>
- <https://digitalcloud.training/certification-training/aws-solutions-architect-associate/management-tools/aws-opsworks/>

## **Question 31**

Which of the following statements are correct about the benefits of AWS Direct Connect? (choose 2)

1. Quick to implement
2. Increased reliability (predictable performance)
3. Lower cost than a VPN
4. Increased bandwidth (predictable bandwidth)
5. Uses redundant paths across the Internet

Answer: 2,4

### **Explanation:**

- AWS Direct Connect is a network service that provides an alternative to using the Internet to connect customers' on premise sites to AWS
- Data is transmitted through a private network connection between AWS and a customer's datacenter or corporate network
- Benefits:
  - - Reduce cost when using large volumes of traffic
  - - Increase reliability (predictable performance)
  - - Increase bandwidth (predictable bandwidth)
  - - Decrease latency
- Direct Connect is not fast to implement as it can take weeks to months to setup (use VPN for fast deployment times)

- Direct Connect is more expensive than VPN
- Direct Connect uses private network connections, it does not use redundant paths over the Internet

### References:

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

## Question 32

Which types of Amazon Kinesis services are available? (choose 2)

1. Kinesis Video Streams
2. Kinesis Encrypted Streams
3. Kinesis Data Firehose
4. Kinesis Shard Streams
5. Kinesis Splunk Streams

Answer: 1,3

### Explanation:

- 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
- There are four types of Kinesis service:
  - - **Kinesis Video Streams** makes it easy to securely stream video from connected devices to AWS for analytics, machine learning (ML), and other processing
  - - **Kinesis Data Streams** enables you to build custom applications that process or analyze streaming data for specialized needs
  - - **Kinesis Data Firehose** is the easiest way to load streaming data into data stores and analytics tools
  - - **Kinesis Data Analytics** is the easiest way to process and analyze real-time, streaming data



- The other options presented are bogus

**References:**

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

## **Question 33**

Where is the information stored that defines an EC2 instance such as the template for the root volume, launch permissions and block device mappings?

1. EFS
2. EBS
3. AMI
4. ARN

Answer: 3

**Explanation:**

- An Amazon Machine Image (AMI) provides the information required to launch an instance, which is a virtual server in the cloud. You must specify a source AMI when you launch an instance. You can launch multiple instances from a single AMI when you need multiple instances with the same configuration. You can use different AMIs to launch instances when you need instances with different configurations
- EBS is the Elastic Block Store
- ARN is the Amazon Resource Name which uniquely identifies AWS resources

**References:**

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

## **Question 34**

What is the best way for an organization to automate the creation, retention, and deletion of EBS snapshots?

1. Use S3 lifecycle policies
2. Create a script
3. Create a CloudFormation template
4. Use Amazon DLM

Answer: 4

**Explanation:**

- You can use Amazon Data Lifecycle Manager (Amazon DLM) to automate the creation, retention, and deletion of snapshots taken to back up your Amazon EBS volumes
- S3 lifecycle policies apply to data in S3 buckets only, not to EBS volumes
- You could write a script but this is not the best method when you have an AWS feature available that performs the exact functions you need
- CloudFormation is typically used for deploying and updating resource configurations rather than for performing operational activities

**References:**

- <https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/snapshot-lifecycle.html>

## **Question 35**

Which of the following statements are correct regarding Elastic Network Interfaces (ENIs)? (choose 2)

1. Additional ENIs can be detached from an instance and attached to another instance
2. The primary ENI is identified as "eth0"

3. The primary ENI can be detached from an instance and attached to another instance
4. The attributes of an ENI do not follow it when moved between instances
5. The primary ENI is identified as "eth1"

Answer: 1,2

**Explanation:**

- An elastic network interface (referred to as a *network interface* in this documentation) is a logical networking component in a VPC that represents a virtual network card
- You can create a network interface, attach it to an instance, detach it from an instance, and attach it to another instance. The attributes of a network interface follow it as it's attached or detached from an instance and reattached to another instance. When you move a network interface from one instance to another, network traffic is redirected to the new instance
- Every instance in a VPC has a default network interface, called the *primary network interface* (eth0). You cannot detach a primary network interface from an instance. You can create and attach additional network interfaces

**References:**

- <https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/using-eni.html>

## **Question 36**

What are the charges for using Amazon Glacier? (choose 2)

1. Data transferred into Glacier
2. Retrieval requests
3. Data storage
4. Enhanced networking

## 5. Minimum storage fees

Answer: 2,3

### **Explanation:**

- With Amazon Glacier you pay for storage on a per GB / month basis, retrieval requests and quantity (based on expedited, standard, or bulk), and data transfer out of Glacier
- You do not pay for data transferred in and there are no minimum storage fees
- Enhanced networking is a feature of EC2

### **References:**

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

## **Question 37**

Which database allows you to scale at the push of a button without incurring any downtime?

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

Answer: 3

### **Explanation:**

- Amazon Dynamo DB is a fully managed NoSQL database service that provides fast and predictable performance with seamless scalability. Push button scaling means that you can scale the DB at any time without incurring downtime

- All other databases are based on EC2 instances and therefore you must increase the instance size to scale which will incur downtime

### References:

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

## **Question 38**

Which feature of Amazon S3 adds a layer of additional security to prevent accidental deletion?

1. Versioning
2. Encryption
3. MFA delete
4. Lifecycle management

Answer: 3

### **Explanation:**

- MFA delete adds an additional layer of security as users must include the **x-amz-mfarequest** header in requests to permanently delete an object version or change the versioning state of the bucket. This header must include the authentication code from a multi-factor authentication device
- Versioning helps to mitigate the impact of deleting objects as older versions are retained however it does not prevent deletion
- Encryption protects against unauthorized agents reading your data, it does not protect it from deletion
- Lifecycle management can also reduce the impact of deleting objects as they may have been archived, but again it does not stop you from deleting them

**References:**

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

**Question 39**

Which service can an organization use to track API activity within their account?

1. AWS CloudTrail
2. Amazon CloudWatch
3. Amazon IAM
4. Amazon CloudHSM

Answer: 1

**Explanation:**

- AWS CloudTrail is a web service that records activity made on your account and delivers log files to an Amazon S3 bucket. CloudTrail is for auditing (CloudWatch is for performance monitoring). CloudTrail is about logging and saves a history of API calls for your AWS account. Provides visibility into user activity by recording actions taken on your account. API history enables security analysis, resource change tracking, and compliance auditing
- Amazon CloudWatch is a monitoring service for AWS cloud resources and the applications you run on AWS. CloudWatch is for performance monitoring (CloudTrail is for auditing). Used to collect and track metrics, collect and monitor log files, and set alarms
- Amazon Identity and Access Management is an identity service that provide authentication and authorization services
- AWS CloudHSM is a cloud-based hardware security module (HSM) that enables you to easily generate and use your own encryption keys on the AWS Cloud

**References:**

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

**Question 40**

What tool provides real time guidance to help you provision your resources following best practices in the areas of cost optimization, performance, security and fault tolerance?

1. AWS Inspector
2. AWS Trusted Advisor
3. AWS Personal Health Dashboard
4. Amazon IAM

Answer: 2

**Explanation:**

- Trusted Advisor is an online resource that helps to reduce cost, increase performance and improve security by optimizing your AWS environment. Trusted Advisor provides real time guidance to help you provision your resources following best practices. Advisor will advise you on Cost Optimization, Performance, Security, and Fault Tolerance
- 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
- Amazon Identity and Access Management is an identity service that provide authentication and authorization services

**References:**

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

## **Question 41**

What is the best way for an organization to transfer hundreds of terabytes of data from their on-premise data center into Amazon S3 with limited bandwidth available?

1. Use S3 Transfer Acceleration
2. Apply compression before uploading
3. Use AWS Snowball
4. Use Amazon CloudFront

Answer: 3

### **Explanation:**

- Snowball is a petabyte-scale data transport solution that uses devices designed to be secure to transfer large amounts of data into and out of the AWS Cloud. Using Snowball addresses common challenges with large-scale data transfers including high network costs, long transfer times, and security concerns
- Amazon S3 Transfer Acceleration enables fast, easy, and secure transfers of files over long distances between your client and an S3 bucket. Transfer Acceleration takes advantage of Amazon CloudFront's globally distributed edge locations. However, for these volumes of data Snowball is a better choice

### **References:**

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

## **Question 42**

When launching an EC2 instance, where can you specify configuration tasks and scripts to run after the instance starts?

1. Metadata
2. User data



3. Run command
4. AWS config

Answer: 2

**Explanation:**

- When you launch an instance in Amazon EC2, you have the option of passing user data to the instance that can be used to perform common automated configuration tasks and even run scripts after the instance starts
- You can pass two types of user data to Amazon EC2: shell scripts and cloud-init directives
- User data is limited to 16KB
- Instance metadata is available at <http://169.254.169.254/latest/meta-data>
- The Instance Metadata Query tool allows you to query the instance metadata without having to type out the full URI or category names
- AWS Config is a service that enables you to assess, audit, and evaluate the configurations of your AWS resources

**References:**

- <https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/user-data.html>
- <https://digitalcloud.training/certification-training/aws-solutions-architect-associate/compute/amazon-ec2/>

## **Question 43**

You need to run a production process that will use several EC2 instances and run constantly on an ongoing basis. The process cannot be interrupted or restarted without issue. What EC2 pricing model would be best for this workload?

1. Reserved instances

2. Spot instances
3. On-demand instances
4. Flexible instances

Answer: 1

**Explanation:**

- RIs provide you with a significant discount (up to 75%) compared to On-Demand instance pricing
- You have the flexibility to change families, OS types, and tenancies while benefitting from RI pricing when you use Convertible RIs
- In this scenario for a stable process that will run constantly on an ongoing basis RIs will be the most affordable solution

**References:**

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

## **Question 44**

Which Amazon RDS feature can reduce the burden on a database that is experiencing heavy read traffic?

1. Multi AZ
2. Read Replicas
3. Log Shipping
4. Global Tables

Answer: 2

**Explanation:**

- Read replicas are used for read-heavy DBs and replication is asynchronous. Read replicas are for workload sharing and offloading. Read replicas provide read-only access to the DB

- Multi-AZ RDS creates a replica in another AZ and synchronously replicates to it (DR only)
- Log shipping is not an RDS feature
- Global Tables is a feature of DynamoDB

**References:**

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

## **Question 45**

Which of the options below are recommendations in the reliability pillar of the well-architected framework? (choose 2)

1. Use ad-hoc recovery procedures
2. Automatically recover from failure
3. Scale vertically to increase aggregate system availability
4. Attempt to accurately estimate capacity requirements
5. Manage change in automation

Answer: 2,5

**Explanation:**

- The reliability pillar includes the ability of a system to recover from infrastructure or service disruptions, dynamically acquire computing resources to meet demand, and mitigate disruptions such as misconfigurations or transient network issues
- There are five design principles for reliability in the cloud:
  - - Test recovery procedures
  - - Automatically recover from failure
  - - Scale horizontally to increase aggregate system availability
  - - Stop guessing capacity
  - - Manage change in automation

**References:**

- <https://aws.amazon.com/blogs/apn/the-5-pillars-of-the-aws-well-architected-framework/>
- <https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/architecting-for-the-cloud/>

## **Question 46**

Which AWS service does API Gateway integrate with to enable users from around the world to achieve the lowest possible latency for API requests and responses?

1. AWS Direct Connect
2. Amazon S3 Transfer Acceleration
3. Amazon CloudFront
4. AWS Lambda

Answer: 3

### **Explanation:**

- CloudFront is used as the public endpoint for API Gateway. Provides reduced latency and distributed denial of service protection through the use of CloudFront
- AWS Direct Connect is a cloud service solution that makes it easy to establish a dedicated network connection from your premises to AWS
- Amazon S3 Transfer Acceleration is a bucket-level feature that enables faster data transfers to and from Amazon S3
- AWS Lambda lets you run code without provisioning or managing servers

### **References:**

- <https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/additional-aws-services-tools/>
- <https://digitalcloud.training/certification-training/aws-solutions-architect-associate/networking-and-content-delivery/amazon-api->

[gateway/](#)

## **Question 47**

Which service provides the ability to simply upload applications and have AWS handle the deployment details of capacity provisioning, load balancing, auto-scaling, and application health monitoring?

1. Amazon EC2
2. Amazon Elastic Beanstalk
3. AWS Auto Scaling
4. AWS OpsWorks

Answer: 2

### **Explanation:**

- AWS Elastic Beanstalk can be used to quickly deploy and manage applications in the AWS Cloud. Developers upload applications and Elastic Beanstalk handles the deployment details of capacity provisioning, load balancing, auto-scaling, and application health monitoring. Considered a Platform as a Service (PaaS) solution. Supports Java, .NET, PHP, Node.js, Python, Ruby, Go, and Docker web applications
- Amazon EC2 is an IaaS solution that provides unmanaged instances that you can deploy with a variety of operating systems
- AWS Auto Scaling provides elasticity for your applications by automatically launching or terminating EC2 instances according to application load or schedules you define
- AWS OpsWorks provides a managed service for Chef and Puppet

### **References:**

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

## **Question 48**

You are concerned that you may be getting close to some of the default service limits for several AWS services. What AWS tool can be used to display current usage and limits?

1. AWS CloudWatch
2. AWS Personal Health Dashboard
3. AWS Trusted Advisor
4. AWS Systems Manager

Answer: 3

**Explanation:**

- Trusted Advisor is an online resource to help you reduce cost, increase performance, and improve security by optimizing your AWS environment. Trusted Advisor provides real time guidance to help you provision your resources following AWS best practices. Offers a Service Limits check (in the Performance category) that displays your usage and limits for some aspects of some services
- Amazon CloudWatch is a monitoring and management service built for developers, system operators, site reliability engineers (SRE), and IT managers
- AWS Personal Health Dashboard provides alerts and remediation guidance when AWS is experiencing events that may impact you
- AWS Systems Manager gives you visibility and control of your infrastructure on AWS

**References:**

- [https://docs.aws.amazon.com/general/latest/gr/aws\\_service\\_limits.html](https://docs.aws.amazon.com/general/latest/gr/aws_service_limits.html)

## **Question 49**

Which of the following represent economic advantages of moving to the AWS cloud? (choose 2)

1. Reduce the need to manage applications

2. Increase efficiencies through automation
3. Reduce the rate of change
4. Reduce the need to manage infrastructure
5. Increase time to market for new applications

Answer: 2,4

**Explanation:**

- With the AWS Cloud you can increase efficiency through the use of automation and reduce the need to manage infrastructure, allowing you to concentrate on managing applications instead
- You do not reduce the need to manage applications in most cases.
- Reducing the rate of change is not something organization's strive for in the cloud (usually faster development cycles are preferred) so it does not represent a valid economic advantage
- You want to reduce not increase time to market for new applications

**References:**

- <https://d1.awsstatic.com/whitepapers/introduction-to-aws-cloud-economics-final.pdf>

## **Question 50**

What advantages do NAT Gateways have over NAT Instances? (choose 2)

1. Can be assigned to security groups
2. Can be used as a bastion host
3. Managed for you by AWS
4. Highly available within each AZ
5. Can be scaled up manually

Answer: 3,4

**Explanation:**

- NAT gateways are managed **for** you by AWS. NAT gateways are highly available in each AZ into which they are deployed. They are not associated with any security groups and can scale automatically up to 45Gbps
- NAT instances are managed **by**. They must be scaled manually and do not provide HA. NAT Instances can be used as bastion hosts and can be assigned to security groups

**References:**

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

## **Question 51**

What speeds is AWS Direct Connect offered at by AWS? (choose 2)

1. 50 Mbps
2. 100 Mbps
3. 1 Gbps
4. 10 Gbps
5. 100 Gbps

Answer: 3,4

**Explanation:**

- AWS Direct Connect is a network service that provides an alternative to using the Internet to connect a customer's on premise sites to AWS. Data is transmitted through a private network connection between AWS and a customer's data center or corporate network
- Available in 1Gbps and 10Gbps
- Speeds of 50Mbps, 100Mbps, 200Mbps, 300Mbps, 400Mbps, and 500Mbps can be purchased through AWS Direct Connect Partners

**References:**



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

## **Question 52**

Which AWS service is known as a "serverless" service and runs code as functions triggered by events?

1. Amazon ECS
2. AWS Lambda
3. Amazon CodeDeploy
4. Amazon Cognito

Answer: 2

### **Explanation:**

- AWS Lambda lets you run code as functions without provisioning or managing servers. Lambda-based applications (also referred to as serverless applications) are composed of functions triggered by events. With serverless computing, your application still runs on servers, but all the server management is done by AWS
- 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 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 Cognito lets you add user sign-up, sign-in, and access control to your web and mobile apps quickly and easily

### **References:**

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

## **Question 53**

Which AWS service is used for decoupling applications components using a message queue?

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

Answer: 4

### **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 applications
- 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 Simple Workflow Service (SWF) is a web service that makes it easy to coordinate work across distributed application components
- 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

### **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-sqs/>

## **Question 54**

At what level is an Internet Gateway attached in the AWS infrastructure?

1. Availability Zone
2. Subnet
3. VPC
4. Region

Answer: 3

### **Explanation:**

- Internet Gateways are attached at the VPC level and then referenced in route tables that are associated with subnets

### **References:**

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

## **Question 55**

Which of the below are valid options for interacting with Amazon Glacier archives? (choose 2)

1. Directly through the management console
2. From the AWS CLI
3. Using S3 Multipart Upload
4. Using the REST API
5. Through IAM

Answer: 2,4

### **Explanation:**

- Glacier provides a management console. You can use the console to create and delete vaults. However, all other interactions with

Glacier require that you use the AWS Command Line Interface (CLI) or write code

- For example, to upload data, such as photos, videos, and other documents, you must either use the AWS CLI or write code to make requests, using either the REST API directly or by using the AWS SDKs

**References:**

- <https://docs.aws.amazon.com/amazonglacier/latest/dev/working-with-archives.html>

## **Question 56**

Which service provides a way to convert video and audio files from their source format into versions that will playback on devices like smartphones, tablets and PCs?

1. Amazon Elastic Transcoder
2. AWS Glue
3. Amazon Rekognition
4. Amazon Comprehend

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 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 Rekognition makes it easy to add image and video analysis to your applications

- Amazon Comprehend is a natural language processing (NLP) service that uses machine learning to find insights and relationships in text

**References:**

- <https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/additional-aws-services-tools/>
- <https://digitalcloud.training/certification-training/aws-solutions-architect-associate/media-services/amazon-elastic-transcoder/>

## **Question 57**

Which AWS support plan comes with a Technical Account Manager (TAM)?

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

Answer: 4

**Explanation:**

- Only the Enterprise plan comes with a TAM

**References:**

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

## **Question 58**

When using AWS Organizations with consolidated billing what are two valid best practices? (choose 2)

1. Always enable multi-factor authentication (MFA) on the root account
2. Always use a straightforward password on the root account

3. The paying account should be used for billing purposes only
4. Use the paying account for deploying resources
5. Never exceed the limit of 20 linked accounts

Answer: 1,3

**Explanation:**

- Best practices include:
  - - Always enable multi-factor authentication (MFA) on the root account
  - - Always use a strong and complex password on the root account
  - - The Paying account should be used for billing purposes only. Do not deploy resources into the Paying account
- There is a default limit of 20 linked accounts but this can be extended and there is no reason why you should stick to a maximum of 20 accounts

**References:**

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

## **Question 59**

Which statement best describes Amazon Route 53?

1. Amazon Route 53 is a service that enables routing within VPCs in an account
2. Amazon Route 53 is a highly available and scalable Domain Name System (DNS) service
3. Amazon Route 53 enables hybrid cloud models by extending an organization's on-premise networks into the AWS cloud
4. Amazon Route 53 is a service for distributing incoming connections between a fleet of registered EC2 instances

Answer: 2

**Explanation:**

- Amazon Route 53 is a highly available and scalable Domain Name System (DNS) service
- The VPC router performs routing within a VPC
- Direct Connect enables hybrid cloud models by extending an organization's on-premise networks into the AWS cloud
- Auto Scaling is a service for distributing incoming connections between a fleet of registered EC2 instances

**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 60**

Which type of AWS Elastic Load Balancer should be used if you want to route traffic to targets based on the content of the request such as DNS name or URL path?

1. Application Load Balancer (ALB)
2. Network Load Balancer (NLB)
3. Classic Load Balancer (CLB)
4. AWS Auto Scaling

Answer: 1

**Explanation:**

- ALB is best suited for load balancing of HTTP and HTTPS traffic and provides advanced request routing targeted at the delivery of modern application architectures, including microservices and containers. Operating at the individual request

level (Layer 7), Application Load Balancer routes traffic to targets within Amazon Virtual Private Cloud (Amazon VPC) based on the content of the request

- NLB is best suited for load balancing of TCP traffic where extreme performance is required. Operating at the connection level (Layer 4), Network Load Balancer routes traffic to targets within Amazon Virtual Private Cloud (Amazon VPC) and is capable of handling millions of requests per second while maintaining ultra-low latencies
- CLB provides basic load balancing across multiple Amazon EC2 instances and operates at both the request level and connection level. Classic Load Balancer is intended for applications that were built within the EC2-Classic network
- AWS Auto Scaling is not a type of ELB

#### **References:**

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

## **Question 61**

Which data warehouse service can be used to query data in an Amazon S3 data lake without loading the data?

1. Amazon RDS
2. AWS Lambda
3. Amazon RedShift
4. Amazon EMR

Answer: 3

#### **Explanation:**

- Amazon Redshift extends data warehouse queries to your data lake, with no loading required. You can run analytic queries against petabytes of data stored locally in Redshift, and directly against exabytes of data stored in Amazon S3



- Amazon RDS is not a data warehouse and cannot query data in S3 at rest
- AWS Lambda runs code as functions and is not a data warehouse
- Amazon Elastic Map Reduce (EMR) provides a managed Hadoop service and cannot query data in S3 at rest

**References:**

- <https://aws.amazon.com/redshift/features/>

## **Question 62**

Under the AWS shared responsibility model what is AWS 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 operating systems
5. Encryption of customer data

Answer: 1,2

**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 63**

Which feature allows customers to route traffic via private IP addresses between two VPCs?

1. Endpoints
2. Network Address Translation
3. Virtual Private Gateway
4. Peering Connections

Answer: 4

### **Explanation:**

- A peering connection enables you to route traffic via private IP addresses between two peered VPCs
- VPC endpoints enable private connectivity to services hosted in AWS, from within your VPC without using an Internet Gateway, VPN, Network Address Translation (NAT) devices, or firewall proxies
- A VPG is the Amazon side of a VPN connection
- Network Address Translation (NAT) is used to translate IP addresses when routing between subnets that do not have a fully routable address space

### **References:**

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

## **Question 64**

Which AWS services can be used to create a "stateless" application? (choose 2)

1. Amazon DynamoDB
2. Amazon RDS
3. Amazon SWF

4. Load balancing with session affinity
5. Amazon EBS

Answer: 1,3

**Explanation:**

- Stateless components include DynamoDB which is often used for storing session state to maintain a stateless architecture and SWF which can be used for a multi-step workflow
- Databases such as RDS are considered stateful
- Load balancing with session affinity can be used for horizontal scaling of stateful components
- Amazon EBS is not a shared storage service so is not ideal for stateless architectures (use S3 or EFS instead)

**References:**

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

## **Question 65**

Which of the options below are recommendations in the security pillar of the well-architected framework? (choose 2)

1. Enable traceability
2. Apply security at the application layer
3. Automate security best practices
4. Protect data when it is at rest only
5. Expect to be secure

Answer: 1,3

**Explanation:**

- The security pillar includes the ability to protect information, systems, and assets while delivering business value through risk assessments and mitigation strategies
- There are six design principles for security in the cloud:
  - - Implement a strong identity foundation
  - - Enable traceability
  - - Apply security at all layers
  - - Automate security best practices
  - - Protect data in transit and at rest
  - - Prepare for security events

**References:**

- <https://aws.amazon.com/blogs/apn/the-5-pillars-of-the-aws-well-architected-framework/>
- <https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/architecting-for-the-cloud/>

# **SET 4: PRACTICE QUESTIONS,**

## **ANSWERS & EXPLANATIONS**

### **Question 1**

Which open-source technology allows you to build and deploy distributed applications inside of software containers?

1. Docker
2. Jenkins
3. Puppet
4. Chef

Answer: 1

#### **Explanation:**

- Docker allows you to package a piece of software in a Docker image, which is a standardized unit for software development, containing everything the software needs to run: code, runtime, system tools, system libraries, etc.
- The other options are automation and orchestration tools

#### **References:**

- [https://d1.awsstatic.com/whitepapers/AWS\\_Cloud\\_Best\\_Practices.pdf](https://d1.awsstatic.com/whitepapers/AWS_Cloud_Best_Practices.pdf)

### **Question 2**

Which of the advantages of cloud listed below is most closely addressed by the capabilities of AWS Auto Scaling?

1. Benefit from massive economies of scale
2. Stop guessing about capacity
3. Stop spending money running and maintaining data centers
4. Go global in minutes

Answer: 2

**Explanation:**

- AWS Auto Scaling helps you to adapt to the demand for your application and scale up and down as needed. This means you don't have to guess capacity upfront as you can provision what you need and allows Auto Scaling to manage the scaling

**References:**

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

### **Question 3**

What does an organization need to do in Amazon IAM to enable user access to services being launched in new region?

1. Update the user accounts to allow access from another region
2. Create new user accounts in the new region
3. Enable global mode in IAM to provision the required access
4. Nothing, IAM is global

Answer: 4

**Explanation:**

- IAM is used to securely control individual and group access to AWS resources. IAM is universal (global) and does not apply to regions

**References:**

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

### **Question 4**

What do Amazon S3 objects consist of? (choose 2)

1. Key
2. Userdata
3. Value
4. ARN
5. AMI

Answer: 1,3

**Explanation:**

- Amazon S3 objects consist of:
- - Key (name of the object)
- - Value (data made up of a sequence of bytes)
- - Version ID (used for versioning)
- - Metadata (data about the data that is stored)

**References:**

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

## **Question 5**

Which type of EBS volume should you choose for an application that requires 12,000 IOPS from a single volume?

1. General Purpose SSD
2. Provisioned IOPS SSD
3. Throughput Optimized HDD
4. Cold HDD

Answer: 2

**Explanation:**

- Provisioned IOPS SSD volumes support up to 32,000 IOPS whereas General Purpose SSD only supports up to 10,000 per volume
- Throughput Optimized HDD supports up to 500 IOPS and Cold HDD supports up to 250 IOPS per volume

**References:**

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

## **Question 6**

Which type of Amazon Route 53 record set should be used to map a zone apex record to an Amazon Elastic Load Balancer?

1. A
2. AAAA
3. CNAME
4. Alias

Answer: 4

**Explanation:**

- The Alias record is a Route 53 specific record type. Alias records are used to map resource record sets in your hosted zone to Amazon Elastic Load Balancing load balancers, Amazon CloudFront distributions, AWS Elastic Beanstalk environments, or Amazon S3 buckets that are configured as websites. An Alias record can be used for resolving apex / naked domain names (e.g. example.com rather than sub.example.com)
- A CNAME record can't be used for resolving apex / naked domain name
- An A record is a simple address record and an AAAA record is used for IPv6

**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 7**

What is the most cost-effective Amazon S3 storage tier for data that is not often accessed but requires high durability?

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

Answer: 3

### **Explanation:**

- S3 Standard-IA is for data that is accessed less frequently, but requires rapid access when needed. S3 Standard-IA offers the high durability, high throughput, and low latency of S3 Standard
- S3 One Zone-IA is for data that is accessed less frequently, but requires rapid access when needed. Unlike other S3 Storage Classes which store data in a minimum of three Availability Zones (AZs), S3 One Zone-IA stores data in a single AZ

### **References:**

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

## **Question 8**

Which types of root storage devices are available for Amazon EC2 instances? (choose 2)

1. EFS file system

2. EBS volume
3. S3 Bucket
4. Instance Store
5. RAM

Answer: 2,4

**Explanation:**

- The only storage options for a root volume that can be booted from are EBS volumes and Instance Stores

**References:**

- <https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/aws-storage/>
- <https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/RootDeviceStorage.html>

## **Question 9**

Which of the following are supported event sources for AWS Lambda?  
(choose 2)

1. Amazon S3
2. Amazon EC2
3. Amazon DynamoDB
4. Amazon RedShift
5. AWS Direct Connect

Answer: 1,3

**Explanation:**

- An event source is an AWS service or developer-created application that produces events that trigger an AWS Lambda

function to run. Amazon S3 and DynamoDB are supported event sources for AWS Lambda

- See the AWS link below for a full list of supported event sources

### **References:**

- <https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/aws-compute/>
- <https://docs.aws.amazon.com/lambda/latest/dg/invoking-lambda-function.html>

## **Question 10**

Which Amazon EC2 pricing option provides significant discounts for fixed term contracts?

1. Reserved Instances
2. Dedicated Instances
3. Dedicated Hosts
4. Spot Instances

Answer: 1

### **Explanation:**

- Reserved instances provide significant discounts, up to 75% compared to On-Demand pricing, by paying for capacity ahead of time
- Spot Instances allow you to purchase spare computing capacity with no upfront commitment at discounted hourly rates
- Dedicated hosts are EC2 servers dedicated to a single customer
- Dedicated Instances are Amazon EC2 instances that run in a VPC on hardware that's dedicated to a single customer

### **References:**

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

## **Question 11**

Which type of Amazon Route 53 routing policy allows you to specify a numerical value per IP address, totalling 100, that favors addresses with higher values?

1. Latency based
2. Failover
3. Weighted
4. Geo-location

Answer: 3

### **Explanation:**

- Similar to simple but you can specify a weight per IP address. You create records that have the same name and type and assign each record a relative weight. Numerical value that favors one IP over another and must total 100
- Failover provides failover to a secondary IP address and is used for active-passive configurations
- With latency based AWS maintains a database of latency from different parts of the world, focusses on improving performance by routing to the region with the lowest latency
- Geo-location Caters to different users in different countries and different languages. Contains users within a particular geography and offers them a customized version of the workload based on their specific needs. Geolocation can be used for localizing content and presenting some or all of your website in the language of your users

### **References:**

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

## **Question 12**

Which statement is correct in relation to the AWS Shared Responsibility Model?

1. Customers are responsible for security of the cloud
2. AWS are responsible for encrypting customer data
3. Customers are responsible for patching storage systems
4. AWS are responsible for the security of regions and availability zones

Answer: 4

### **Explanation:**

- AWS are responsible for “Security of the Cloud”. AWS is responsible for protecting the infrastructure that runs all of the services offered in the AWS Cloud. This infrastructure is composed of the hardware, software, networking, and facilities that run AWS Cloud services, and this includes regions, availability zones and edge locations
- Customers are responsible for “Security in the Cloud”. This includes encrypting customer data, patching operating systems but not patching or maintaining the underlying infrastructure

### **References:**

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

## **Question 13**

Which Amazon RDS deployment type is best used to enable fault tolerance in the event of the failure of an availability zone?

1. Multiple Availability Zones
2. Multiple Regions
3. Read Replicas
4. Write Replicas

Answer: 1

**Explanation:**

- Multi AZ provides a mechanism to failover the RDS database to another synchronously replicated copy in the event of the failure of an AZ
- There is no option for multiple region failover of Amazon RDS
- Read replicas are used for offloading read traffic from a primary database but cannot be used for writing and cannot be used to failover the primary database
- There is no such thing as write replicas

**References:**

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

## **Question 14**

Which AWS service lets you add user sign up, sign-in and access control to web and mobile apps?

1. AWS Directory Service
2. AWS Cognito
3. AWS Artifact
4. AWS CloudHSM

Answer: 2

**Explanation:**

- Amazon Cognito lets you add user sign-up, sign-in, and access control to your web and mobile apps quickly and easily. Amazon Cognito scales to millions of users and supports sign-in with social identity providers, such as Facebook, Google, and Amazon, and enterprise identity providers via SAML 2.0

- AWS Directory Service for Microsoft Active Directory, also known as AWS Managed Microsoft AD, enables your directory-aware workloads and AWS resources to use managed Active Directory in the AWS Cloud
- AWS Artifact is your go-to, central resource for compliance-related information that matters to you
- AWS CloudHSM is a cloud-based hardware security module (HSM) that enables you to easily generate and use your own encryption keys on the AWS Cloud

### References:

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

## **Question 15**

Which of the options below are recommendations in the reliability pillar of the well-architected framework? (choose 2)

1. Test recovery procedures
2. Manually recover from failure
3. Scale vertically using big systems
4. Stop guessing about capacity
5. Manage change in manual processes

Answer: 1,4

### **Explanation:**

- The reliability pillar includes the ability of a system to recover from infrastructure or service disruptions, dynamically acquire computing resources to meet demand, and mitigate disruptions such as misconfigurations or transient network issues
- There are five design principles for reliability in the cloud:
  - - Test recovery procedures
  - - Automatically recover from failure

- - Scale horizontally to increase aggregate system availability
- - Stop guessing capacity
- - Manage change in automation

### References:

- <https://aws.amazon.com/blogs/apn/the-5-pillars-of-the-aws-well-architected-framework/>
- <https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/architecting-for-the-cloud/>

## **Question 16**

Which AWS service is a Natural Language Processing (NLP) service that uses machine learning to find insights and relationships in text?

1. Amazon Transcribe
2. Amazon Comprehend
3. Amazon Rekognition
4. Amazon Sagemaker

Answer: 2

### **Explanation:**

- Amazon Comprehend is a natural language processing (NLP) service that uses machine learning to find insights and relationships in text. The service 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
- Amazon Rekognition makes it easy to add image and video analysis to your applications



- Amazon SageMaker is a fully-managed platform that enables developers and data scientists to quickly and easily build, train, and deploy machine learning models at any scale

**References:**

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

## **Question 17**

Which of the following can be assigned to an IAM user? (choose 2)

1. An access key ID and secret access key
2. A password for logging into Linux
3. A password for access to the management console
4. A key pair
5. An SSL/TLS certificate

Answer: 1,3

**Explanation:**

- An IAM user is an entity that represents a person or service. Users can be assigned an access key ID and secret access key for programmatic access to the AWS API, CLI, SDK, and other development tools and a password for access to the management console
- Key pairs are used with Amazon EC2 as a method of using public key encryption to securely access EC2 instances
- You cannot assign an IAM user with a password for logging into a Linux instance
- You cannot assign an SSL/TLS certificate to a user

**References:**

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

## **Question 18**

Which Amazon namespace is used to uniquely identify AWS resources?

1. AMI
2. API
3. ARN
4. ACL

Answer: 3

### **Explanation:**

- Amazon Resource Names (ARNs) uniquely identify AWS resources. We require an ARN when you need to specify a resource unambiguously across all of AWS, such as in IAM policies, Amazon Relational Database Service (Amazon RDS) tags, and API calls
- An application programming interface (API) is a set of subroutine definitions, communication protocols, and tools for building software
- An Amazon Machine Image (AMI) provides the information required to launch an instance, which is a virtual server in the cloud
- Amazon S3 access control lists (ACLs) enable you to manage access to buckets and objects

### **References:**

- <https://docs.aws.amazon.com/general/latest/gr/aws-arns-and-namespaces.html>

## **Question 19**

Which Amazon EC2 billing option allows gives you low cost, maximum flexibility, no upfront costs or commitment, and you only pay for what you use?

1. Reserved Instances

2. Spot Instances
3. Dedicated Host
4. On-Demand Instances

Answer: 4

**Explanation:**

- With On-Demand instances you pay for hours used with no commitment. There are no upfront costs so you have maximum flexibility
- Spot instances are used for getting a very low price which you bid on. You lose some flexibility as you are constrained by market prices and your workloads can be terminated if the market price exceeds your bid price
- Reserved instances are based on a commitment to 1 or 3 years in exchange for a large discount
- Dedicated hosts use physically dedicated EC2 servers to isolate your workloads and are expensive

**References:**

- <https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/aws-compute/>
- <https://digitalcloud.training/certification-training/aws-solutions-architect-associate/compute/amazon-ec2/>

## **Question 20**

What is the difference between an EBS volume and an Instance store?

1. EBS volumes are object storage devices whereas Instance store volume are block based
2. Instance store volumes are ephemeral whereas EBS volumes are persistent storage
3. Instance store volumes can be used with all EC2 instance types whereas EBS cannot

4. EBS volumes are file-level storage devices whereas Instance store volumes are object-based

Answer: 2

**Explanation:**

- EBS-backed means the root volume is an EBS volume and storage is persistent. Instance store-backed means the root volume is an instance store volume and storage is not persistent
- Both EBS and Instance store volumes are block-based storage devices
- EBS volumes can be used with all EC2 instance types whereas Instance store volumes are more limited in compatibility

**References:**

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

## **Question 21**

Which of the below are valid use cases for using AWS services to implement real-time auditing? (choose 2)

1. Use Amazon Inspector to monitor for compliance
2. Use Amazon CloudWatch for monitoring API calls
3. Use Amazon CloudTrail to monitor application performance
4. Use AWS IAM to store log files
5. Use AWS Lambda to scan log files

Answer: 1,5

**Explanation:**

- Amazon Inspector is an automated security assessment service that helps improve the security and compliance of applications deployed on AWS. Amazon Inspector automatically assesses

applications for exposure, vulnerabilities, and deviations from best practices

- You can use AWS Lambda, Amazon EMR, the Amazon Elasticsearch Service, or third- party tools from the AWS Marketplace to scan logs to detect things like unused permissions, overuse of privileged accounts, usage of keys, anomalous logins, policy violations, and system abuse
- CloudWatch is used for performance monitoring whereas CloudTrail is used for logging API calls
- AWS IAM is not used for storage of log files

**References:**

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

## **Question 22**

Which Compute service should be used for running a Linux operating system upon which you will install custom software?

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

Answer: 2

**Explanation:**

- Amazon EC2 should be used when you need access to a full operating system instance
- Amazon Elastic Container Service (ECS) and Amazon Elastic Container Service for Kubernetes (EKS) are used for running software containers, not full operating system instances
- AWS Lambda runs code as functions in response to events

**References:**

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

## **Question 23**

What is the scope of an Amazon Virtual Private Cloud (VPC)?

1. It spans multiple subnets
2. It spans a single CIDR block
3. It spans all Availability Zones in all regions
4. It spans all Availability Zones within a region

Answer: 4

### **Explanation:**

- A virtual private cloud (VPC) is a virtual network dedicated to your AWS account. A VPC spans all the Availability Zones in the region
- You can have multiple CIDR blocks in a VPC
- A VPC spans AZs, subnets are created within AZs

### **References:**

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

## **Question 24**

Which of the below are valid options within the VPC Wizard? (choose 2)

1. VPC with Two Public Subnets
2. VPC with Private Subnets
3. VPC with a Single Public Subnet
4. VPC with Public and Private Subnets and Hardware VPN Access
5. VPC with a Private Subnet Only and Software VPN Access

Answer: 3,4

**Explanation:**

- The options available in the VPC Wizard are:
  - - VPC with a Single Public Subnet
  - - VPC with Public and Private Subnets
  - - VPC with Public and Private Subnets and Hardware VPN Access
  - - VPC with a Private Subnet Only and Hardware VPN Access

**References:**

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

## **Question 25**

Which type of AWS Storage Gateway can be used to backup data with popular backup software?

1. File Gateway
2. Volume Gateway
3. Gateway Virtual Tape Library
4. Backup Gateway

Answer: 3

**Explanation:**

- The AWS Storage Gateway service enables hybrid storage between on-premises environments and the AWS Cloud. The Gateway Virtual Tape Library can be used with popular backup software such as NetBackup, Backup Exec and Veeam. Uses a virtual media changer and tape drives
- There is no such thing as a Backup Gateway in the AWS products

- 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

**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 26**

Which type of security control can be used to deny network access from a specific IP address?

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

Answer: 2

**Explanation:**

- A Network ACL supports allow and deny rules. You can create a deny rule specifying a specific IP address that you would like to block
- A Security Group only supports allow rules
- AWS WAF is a web application firewall
- AWS Shield is a managed Distributed Denial of Service (DDoS) protection service

**References:**

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



## **Question 27**

Where can resources be launched when configuring AWS Auto Scaling?

1. Multiple AZs and multiple regions
2. Multiple AZs within a region
3. A single subnet
4. Multiple VPCs

Answer: 2

### **Explanation:**

- AWS Auto Scaling is configured within the EC2 console and can launch instances within a VPC across multiple AZs. It cannot launch resources into another region

### **References:**

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

## **Question 28**

Which of the following security related activities are AWS customers responsible for? (choose 2)

1. Installing patches on network devices
2. Implementing data center access controls
3. Implementing IAM password policies
4. Installing patches on Windows operating systems
5. Secure disposal of faulty disk drives

Answer: 3,4

### **Explanation:**

- Customers are responsible for configuring their own IAM password policies and installing operating system patches on Amazon EC2 instances
- AWS are responsible for installing patches on physical hardware devices, data center access controls and secure disposal of disk drives

**References:**

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

## **Question 29**

In addition to DNS services, what other services does Amazon Route 53 provide? (choose 2)

1. DHCP
2. Domain registration
3. Routing
4. Traffic flow
5. Caching

Answer: 2,4

**Explanation:**

- Route 53 features include domain registration, DNS, traffic flow, health checking, and failover
- Route 53 does not support DHCP, routing or caching

**References:**

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

## **Question 30**

What pricing models are available for DynamoDB? (choose 2)

1. On-demand capacity mode
2. Spot capacity mode
3. Provisioned capacity mode
4. Dedicated capacity mode
5. Reserved capacity mode

Answer: 1,3

**Explanation:**

- **On-demand capacity mode:** DynamoDB charges you for the data reads and writes your application performs on your tables. You do not need to specify how much read and write throughput you expect your application to perform because DynamoDB instantly accommodates your workloads as they ramp up or down
- **Provisioned capacity mode:** you specify the number of reads and writes per second that you expect your application to require. You can use auto scaling to automatically adjust your table's capacity based on the specified utilization rate to ensure application performance while reducing cost

**References:**

- <https://digitalcloud.training/certification-training/aws-solutions-architect-associate/database/amazon-dynamodb/>

## **Question 31**

Which storage type can be mounted using the NFS protocol to many EC2 instances simultaneously?

1. Amazon EBS
2. Amazon Instance Store
3. Amazon S3
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 uses the NFSv4.1 protocol. Can concurrently connect 1 to 1000s of EC2 instances, from multiple AZs
- EBS volumes can only be attached to a single EC2 instance at a time and are block devices (not NFS)
- Amazon S3 is an object store and is connected to using a RESTful protocol over HTTP
- Amazon Instance Store is a type of ephemeral block-based volume that can be attached to a single EC2 instance at a time

**References:**

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

## **Question 32**

What are the fundamental charges for an Amazon EC2 instance? (choose 2)

1. Compute uptime
2. Data storage
3. Basic monitoring
4. AMI
5. Private IP address

Answer: 1,2

**Explanation:**

- When using EC2 instances you are charged for the compute uptime of the instance based on the family and type you chose.

You are also charged for the amount of data provisioned

- Basic monitoring is free for EC2, detailed monitoring is charged
- Amazon Machine Images (AMIs) are not chargeable
- You do not pay for private IP addresses

**References:**

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

## **Question 33**

What are the fundamental charges for Elastic Block Store (EBS) volumes? (choose 2)

1. The amount of data storage consumed
2. The amount of data storage provisioned
3. Provisioned IOPS
4. Inbound data transfer
5. Number of snapshots

Answer: 2,3

**Explanation:**

- With EBS volumes you are charged for the amount of data provisioned (not consumed) per month. This means you can have empty space within a volume and you still pay for it
- With provisioned IOPS volumes you are also charged for the amount you provision in IOPS
- You pay for the storage consumed by snapshots, not by the number of snapshots

**References:**

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

## **Question 34**

Which tool can be used to provide real time guidance on provisioning resources following AWS best practices?

1. AWS Personal Health Dashboard
2. AWS Simple Monthly Calculator
3. AWS Trusted Advisor
4. AWS Inspector

Answer: 3

### **Explanation:**

- Trusted Advisor is an online resource that helps to reduce cost, increase performance and improve security by optimizing your AWS environment. Trusted Advisor provides real time guidance to help you provision your resources following best practices
- 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
- The AWS Simple Monthly Calculator helps you to estimate the cost of using AWS services

### **References:**

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

## **Question 35**

What types of monitoring can Amazon CloudWatch be used for? (choose 2)

1. Application performance
2. API access
3. Operational health

4. Infrastructure
5. Data center

Answer: 1,3

**Explanation:**

- Amazon CloudWatch is a monitoring service for AWS cloud resources and the applications you run on AWS. CloudWatch performs performance monitoring and can monitor custom metrics generated by applications and the operational health of your AWS resources
- Amazon CloudTrail monitors API access
- Infrastructure and data center monitoring is not accessible to AWS customers

**References:**

- <https://digitalcloud.training/certification-training/aws-solutions-architect-associate/management-tools/amazon-cloudwatch/>

## **Question 36**

When using an Elastic Load Balancer, which process checks for connections requests, using a configured protocol and port?

1. Rule
2. Listener
3. Action
4. Condition

Answer: 2

**Explanation:**

- A **listener** is a process that checks for connection requests, using the protocol and port that you configure. The rules that you

define for a listener determine how the load balancer routes requests to the targets in one or more target groups

- Each listener has a default **rule**, and you can optionally define additional rules. Each rule consists of a priority, one or more actions, an optional host condition, and an optional path condition
- Each rule **action** has a type, an order, and information required to perform the action. The following are the supported action types
- There are two types of rule **conditions**: host and path. Each rule can have up to one host condition and up to one path condition

#### References:

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

### Question 37

Which two types of database engine can be used with Amazon ElastiCache?  
(choose 2)

1. Memcached
2. HANA
3. Redis
4. MongoDB
5. MemSQL

Answer: 1,3

#### Explanation:

- ElastiCache is a web service that makes it easy to deploy and run Memcached or Redis protocol-compliant server nodes in the cloud. The in-memory caching provided by ElastiCache can be used to significantly improve latency and throughput for many read-heavy application workloads or compute-intensive workloads



- Only the Memcached and Redis database engines can be used with ElastiCache, the others in the list are all in-memory databases but are not supported

### References:

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

## **Question 38**

Which AWS service is a data warehouse that uses columnar data storage and is suited to analytic and reporting workloads against very large data sets?

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

Answer: 2

### **Explanation:**

- A data warehouse is a specialized type of relational database, optimized for analysis and reporting of large amounts of data. It can be used to combine transactional data from disparate sources making them available for analysis and decision-making. Amazon Redshift is a managed data warehouse service that is designed to operate at less than a tenth the cost of traditional solutions
- Amazon Redshift achieves efficient storage and optimum query performance through a combination of massively parallel processing (MPP), columnar data storage, and targeted data compression encoding schemes. RedShift is particularly suited to analytic and reporting workloads against very large data sets

- Amazon RDS (and Aurora, which is an RDS DB), is a relational, transactional DB not a data warehouse
- Amazon DynamoDB is a NoSQL DB used for transactional systems also

**References:**

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

## **Question 39**

What are two components of Amazon S3? (choose 2)

1. Buckets
2. Directories
3. Objects
4. File systems
5. Block devices

Answer: 1,3

**Explanation:**

- Amazon S3 is an object-based storage system that is accessed using a RESTful API over HTTP(S). It consists of buckets, which are root level folders, and objects, which are the files, images etc. that you upload
- The terms directory, file system and block device do not apply to S3

**References:**

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

## **Question 40**

When using Amazon RDS databases, which items are you charged for? (choose 2)

1. Inbound data transfer
2. Multi AZ
3. Backup up to the DB size
4. Outbound data transfer
5. Single AZ

Answer: 2,4

### **Explanation:**

- With Amazon RDS you are charged for the type and size of database, the uptime, any additional storage of backup (above the DB size), requests, deployment type (e.g. you pay for multi AZ), and data transfer outbound

### **References:**

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

## **Question 41**

You need to resolve a domain name to a target domain name for a record that is hosted externally to AWS. Which record type can you configure in Route 53?

1. Alias
2. NS
3. CNAME
4. SPF

Answer: 3

**Explanation:**

- Both CNAME records and Alias records can be used to map a domain name to a target domain name. However, only a CNAME record can be used to map to a target domain external to AWS.
- Alias records are used to map resource record sets in your hosted zone to Amazon Elastic Load Balancing load balancers, Amazon CloudFront distributions, AWS Elastic Beanstalk environments, or Amazon S3 buckets that are configured as websites
- An NS record is a Name Server record and identifies DNS servers
- An SPF record is a Sender Policy Framework record and identifies the mail servers that are allowed to send mail for a domain

**References:**

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

**Question 42**

Which feature of AWS IAM enables you to identify unnecessary permissions that have been assigned to users?

1. Role Advisor
2. Access Advisor
3. Permissions Advisor
4. Group Advisor

Answer: 2

**Explanation:**

- The IAM console provides information about when IAM users and roles last attempted to access AWS services. This information is called *service last accessed data*. This data can help you identify unnecessary permissions so that you can refine your IAM policies to better adhere to the principle of "least

privilege." That means granting the minimum permissions required to perform a specific task. You can find the data on the **Access Advisor** tab in the IAM console by examining the detail view for any IAM user, group, role, or managed policy

**References:**

- [https://docs.aws.amazon.com/IAM/latest/UserGuide/access\\_policies\\_access-advisor.html](https://docs.aws.amazon.com/IAM/latest/UserGuide/access_policies_access-advisor.html)

## **Question 43**

How can you enable access to AWS accounts using credentials from an on-premise corporate directory?

1. SSO using Cognito
2. Federation using IAM
3. Replication using Simple AD
4. AWS Organizations

Answer: 2

**Explanation:**

- You can enable single sign-on (SSO) to your AWS accounts by using federation and AWS Identity and Access Management (IAM). By federating your AWS accounts, users can sign in to the AWS Management Console and AWS Command Line Interface (CLI) using credentials from your corporate directory
- Amazon Cognito helps you add user sign-up and sign-in to your mobile and web apps easily, it is not used for connecting corporate directories
- Simple AD is an inexpensive Active Directory-compatible service with common directory features. It is a standalone directory on AWS and cannot replicate with an on-premise directory
- AWS Organizations offers policy-based management for multiple AWS accounts. With Organizations, you can create

groups of accounts, automate account creation, apply and manage policies for those group. It is not used for SSO

**References:**

- <https://aws.amazon.com/identity/federation/>

## **Question 44**

What billing timeframes are available for Amazon EC2 on-demand instances? (choose 2)

1. Per second
2. Per minute
3. Per hour
4. Per day
5. Per week

Answer: 1,3

**Explanation:**

- With EC2 you are billed either by the second, for some Linux instances, or by the hour for all other instance types

**References:**

- <https://aws.amazon.com/ec2/pricing/on-demand/>

## **Question 45**

Which service can be used to assign a policy to a group?

1. AWS IAM
2. Amazon Cognito
3. Amazon STS
4. AWS Shield

Answer: 1

**Explanation:**

- IAM is used to securely control individual and group access to AWS resources. Groups are collections of users and have policies attached to them. You can use IAM to attach a policy to a group
- Amazon Cognito is used for authentication using mobile apps
- 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 Shield** is a managed Distributed Denial of Service (DDoS) protection service that safeguards applications running on AWS

**References:**

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

## **Question 46**

Which AWS service uses a highly secure hardware storage device to store encryption keys?

1. AWS WAF
2. AWS IAM
3. AWS CloudHSM
4. Amazon Cloud Directory

Answer: 3

**Explanation:**

- AWS CloudHSM is a cloud-based hardware security module (HSM) that allows you to easily add secure key storage and high-performance crypto operations to your AWS applications
- Amazon Cloud Directory enables you to build flexible cloud-native directories for organizing hierarchies of data along multiple dimensions

- AWS WAF is a web application firewall that helps protect your web applications from common web exploits
- AWS Identity and Access Management (IAM) is used for managing users, groups, and roles in AWS

**References:**

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

## **Question 47**

Using Amazon S3 what method can be used to automatically copy objects from one region to another?

1. Cross-region synchronization
2. Cross-zone replication
3. Cross-region replication
4. Cross-account replication

Answer: 3

**Explanation:**

- CRR is an Amazon S3 feature that automatically replicates data across AWS Regions. With CRR, every object uploaded to an S3 bucket is automatically replicated to a destination bucket in a different AWS Region that you choose. CRR is configured at the S3 bucket level. Versioning must be enabled for both the source and destination 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 48**



An organization has multiple AWS accounts and uses a mixture of on-demand and reserved instances. One account has a considerable amount of unused reserved instances. How can the organization reduce their costs? (choose 2)

1. Redeem their reserved instances
2. Use Spot instances instead
3. Create an AWS Organization configuration linking the accounts
4. Switch to using placement groups
5. Setup consolidated billing between the accounts

Answer: 3,5

**Explanation:**

- AWS organizations allow you to consolidate multiple AWS accounts into an organization that you create and centrally manage. Unused reserved instances (RIs) for EC2 are applied across the group so the organization can utilize their unused reserved instance instead of consuming on-demand instances which will lower their costs
- You cannot redeem your reserved instances. You can sell them on the AWS marketplace however
- Using placement groups will not lower their costs
- Spot instance pricing is variable so it is not guaranteed to lower the cost and it is not suitable for workloads that cannot be unexpectedly terminated by AWS

**References:**

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

## **Question 49**

Which type of connection should be used to connect an on-premises data center with the AWS cloud that is high speed, low latency and does not use the Internet?

1. AWS Managed VPN
2. VPC Endpoints
3. Direct Connect
4. IPSec VPN

Answer: 3

**Explanation:**

- AWS Direct Connect is a network service that provides an alternative to using the Internet to connect a customer's on premise sites to AWS. Data is transmitted through a private network connection between AWS and a customer's datacenter or corporate network. Direct Connect is high bandwidth, and low latency
- The AWS Managed VPN (which is a type of IPSec VPN) is fast to setup but uses the public Internet and therefore latency is not as good and is unpredictable
- VPC endpoint enable private connectivity to services hosted in AWS, from within your VPC without using an Internet Gateway, VPN, Network Address Translation (NAT) devices, or firewall proxies

**References:**

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

## **Question 50**

What are two examples of the advantages of cloud computing? (choose 2)

1. Trade operating costs for capital costs
2. Benefit from massive economies of scale
3. Increase speed and agility
4. Trade variable expense for capital expense
5. Secure data centers

Answer: 2,3

**Explanation:**

- The 6 advantages of cloud AWS discuss are:
- - Trade capital expense for variable expense
- - Benefit from massive economies of scale
- - Stop guessing about capacity
- - Increase speed and agility
- - Stop spending money running and maintaining data centers
- - Go global in minutes
- Secure data centers are not a reason to move to the cloud. Your on-premises data centers should also be secure

**References:**

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

## **Question 51**

Which AWS service provides a single location to track the progress of application migrations across multiple AWS and partner solutions?

5. AWS Database Migration Service
1. AWS Server Migration Service
2. AWS Migration Hub
3. AWS Batch

Answer: 3

**Explanation:**

- AWS Migration Hub provides a single location to track the progress of application migrations across multiple AWS and partner solutions. Using Migration Hub allows you to choose the AWS and partner migration tools that best fit your needs, while

providing visibility into the status of migrations across your portfolio of applications. This includes AWS Database Migration Service, AWS Server Migration Service, and partner migration tools

- 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
- With AWS Batch, you simply package the code for your batch jobs, specify their dependencies, and submit your batch job using the AWS Management Console, CLIs, or SDK

**References:**

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

## **Question 52**

Which Amazon EC2 feature provides a static IPv4 public IP address that does not change when the instance is rebooted?

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

Answer: 1

**Explanation:**

- An Elastic IP address is a static IPv4 address designed for dynamic cloud computing. An Elastic IP address is associated with your AWS account. Elastic IP addresses do not change when the instance is rebooted and can be moved between instances as required
- All other answers are bogus

**References:**

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

**Question 53**

Which security service only requires a rule to be created in one direction as it automatically allows return traffic?

1. VPC Router
2. Network ACL
3. Security Group
4. AWS Shield

Answer: 3

**Explanation:**

- Security groups are stateful so if you allow traffic to pass through, the return traffic is automatically allowed even if no rule matches the traffic
- Network ACLs are stateless so you must create rules in both directions to allow traffic through
- A VPC router is not a security service
- AWS Shield is a managed Distributed Denial of Service (DDoS) protection service that safeguards applications running on AWS

**References:**

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

**Question 54**

Which AWS service allows you to automate the evaluation of recorded configurations against desired configuration?

1. AWS OpsWorks

2. AWS Service Catalog
3. AWS CloudFormation
4. AWS Config

Answer: 4

**Explanation:**

- AWS Config is a service that enables you to assess, audit, and evaluate the configurations of your AWS resources. Config continuously monitors and records your AWS resource configurations and allows you to automate the evaluation of recorded configurations against desired configurations
- AWS OpsWorks is a configuration management service that provides managed instances of Chef and Puppet
- AWS Service Catalog allows organizations to create and manage catalogs of IT services that are approved for use on AWS
- AWS CloudFormation provides a common language for you to describe and provision all the infrastructure resources in your cloud environment

**References:**

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

## **Question 55**

Your organization is looking to expand into the cloud for their web presence and development and test environments. Production systems will remain on-premises. What cloud computing model will best suit the organization?

1. Private
2. Public
3. Hybrid
4. PaaS

Answer: 3

**Explanation:**

- A hybrid cloud computing model includes services deployed in private clouds and public clouds. This model suits the businesses requirements
- Platform as a Service (PaaS) is a type service offering rather than a cloud computing model

**References:**

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

## **Question 56**

You would like to collect custom metrics from a production application every 1 minute. What type of monitoring should you use?

1. CloudWatch with detailed monitoring
2. CloudWatch with basic monitoring
3. CloudTrail with detailed monitoring
4. CloudTrail with basic monitoring

Answer: 1

**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). Used to collect and track metrics, collect and monitor log files, and set alarms. Basic monitoring collects metrics every 5 minutes whereas detailed monitoring collects metrics every 1 minute
- AWS CloudTrail is a web service that records activity made on your account and delivers log files to an Amazon S3 bucket. CloudTrail is for auditing (CloudWatch is for performance)

monitoring). CloudTrail is about logging and saves a history of API calls for your AWS account

**References:**

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

## **Question 57**

To reduce the price of your Amazon EC2 instances, which term lengths are available for reserved instances?

1. 1 year
2. 2 years
3. 3 years
4. 4 years
5. 5 years

Answer: 1,3

**Explanation:**

- Reserved instances provide significant discounts, up to 75% compared to On-Demand pricing, by paying for capacity ahead of time. Good for applications that have predictable usage, that need reserved capacity, and for customers who can commit to a 1 or 3-year term

**References:**

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

## **Question 58**

Which of the following is an advantage of cloud computing compared to deploying your own infrastructure on-premise?

1. Flexibility to choose your own hardware



2. Ability to choose bespoke infrastructure configurations
3. Paying only for what you use
4. Spend using a CAPEX model

Answer: 3

**Explanation:**

- With AWS you only pay for what you use. However, you cannot choose your own hardware/infrastructure and the payment model is operational (OPEX) not capital (CAPEX)

**References:**

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

## **Question 59**

Which team is available to support AWS customers on an Enterprise support plan?

1. AWS Technical Account Manager
2. AWS Concierge
3. AWS Billing and Accounts
4. AWS Technical Support

Answer: 2

**Explanation:**

- Included as part of the Enterprise Support plan, the Support Concierge Team are AWS billing and account experts that specialize in working with enterprise accounts

**References:**

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

- <https://aws.amazon.com/premiumsupport/features/>

## **Question 60**

What is required to decrypt the Administrator password of a newly launched Amazon EC2 Windows instance?

1. Key pair
2. Access key and secret ID
3. KMS key
4. IAM role

Answer: 1

### **Explanation:**

- You use a key pair to decrypt the Administrator password through the console or using the CLI
- An access key and secret ID are associated with IAM accounts and are used for signing programmatic requests
- KMS is used for managing encryption keys, a "KMS key" is incorrect
- IAM roles cannot be used for decrypting the Administrator password

### **References:**

- <https://aws.amazon.com/premiumsupport/knowledge-center/retrieve-windows-admin-password/>

## **Question 61**

Which AWS service can be used for testing and interacting with apps for Android, iOS and web apps?

1. AWS AppSync
2. AWS Device Farm
3. AWS Config

## 4. AWS CodeDeploy

Answer: 2

### **Explanation:**

- AWS Device Farm is an app testing service that lets you test and interact with your Android, iOS, and web apps on many devices at once, or reproduce issues on a device in real time
- AWS AppSync makes it easy to build data-driven mobile and browser-based apps that deliver responsive, collaborative experiences by keeping the data updated when devices are connected, enabling the app to use local data when offline, and synchronizing the data when the devices reconnect
- 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 Config is a service that enables you to assess, audit, and evaluate the configurations of your AWS resources

### **References:**

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

## **Question 62**

How are AWS Lambda functions triggered?

1. Events
2. Schedules
3. Metrics
4. Counters

Answer: 1

**Explanation:**

- AWS Lambda lets you run code as functions without provisioning or managing server. Lambda-based applications (also referred to as serverless applications) are composed of functions triggered by events

**References:**

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

## **Question 63**

Which of the below are good use cases for a specific Amazon EC2 pricing model? (choose 2)

1. Spot for consistent load over a long term
2. On-demand for ad-hoc requirements that cannot be interrupted
3. Reserved instances for steady state predictable usage
4. On-demand for regulatory requirements that do not allow multi-tenant virtualization
5. Reserved instances for applications with flexible start and end times

Answer: 2,3

**Explanation:**

- Typical use cases for the pricing models listed are:
- **On-demand:** Good for users that want the low cost and flexibility of EC2 without any up-front payment or long-term commitment. Applications with short term, spiky, or unpredictable workloads that cannot be interrupted
- **Reserved:** Applications with steady state or predictable usage or that require reserved capacity
- **Spot:** Applications that have flexible start and end times and that are only feasible at very low compute prices. May be terminated

- **Dedicated hosts:** Useful for regulatory requirements that may not support multi-tenant virtualization. Great for licensing which does not support multi-tenancy or cloud deployments

**References:**

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

## **Question 64**

What type of Amazon CloudFront distribution support streaming media files using Adobe Flash Media?

1. Web distribution
2. Static website
3. RTMP distribution
4. S3 buckets

Answer: 3

**Explanation:**

- An RTMP distribution is used to distribute streaming media files using Adobe Flash Media Server's RTMP protocol
- Of the answers listed, only web distribution and RTMP distribution are actually types of distribution

**References:**

- <https://digitalcloud.training/certification-training/aws-solutions-architect-associate/networking-and-content-delivery/amazon-cloudfront/>

## **Question 65**

Which of the below are components that can be configured in the VPC section of the AWS management console? (choose 2)

1. Subnet

2. EBS volumes
3. Elastic Load Balancer
4. Endpoints
5. DNS records

Answer: 1,4

**Explanation:**

- You can have configured subnets and endpoints within the VPC section of AWS management console
- EBS volumes and ELB must be configured in the EC2 section of the AWS management console
- DNS records must be configured in Amazon Route 53

**References:**

- <https://digitalcloud.training/certification-training/aws-solutions-architect-associate/networking-and-content-delivery/amazon-vpc/>

# **SET 5: PRACTICE QUESTIONS,**

## **ANSWERS & EXPLANATIONS**

### **Question 1**

A company wants to utilize a pay as you go cloud model for all of their applications without CAPEX costs and which is highly elastic. Which cloud delivery model will suit them best?

1. Public
2. Private
3. Hybrid
4. On-premise

Answer: 1

#### **Explanation:**

- The public cloud is offered under a purely pay as you go model (unless you choose to reserve), and allows companies to completely avoid CAPEX costs. The public cloud is also highly elastic so companies can grow and shrink the applications as demand changes
- Private and on-premise clouds are essentially the same, though both could be managed by a third party and even could be delivered under an OPEX model by some vendors. However, they are typically more CAPEX heavy and the elasticity is limited
- A hybrid model combines public and private and this company wants to go all in on a single model

#### **References:**

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

## **Question 2**

Which AWS support plan provides email support by the Cloud Support Associates team?

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

Answer: 2

### **Explanation:**

- Developer provides email support by the Cloud Support Associates team whereas Business and Enterprise provide email support by the Cloud Support Engineers team
- Basic does not provide email support at all

### **References:**

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

## **Question 3**

Which type of data storage system is typically considered to hold "structured" data?

1. Non-relational database
2. File system
3. Email system
4. Relational database

Answer: 4

### **Explanation:**

- Relation databases such as Structured Query Language (SQL) databases hold data in a structured format. Examples are Amazon



RDS and Microsoft SQL Server

- File systems, email systems and non-relational databases hold data in an "unstructured" format. This means that though there is some structure to it, the data cannot be easily searched using standard data processing algorithms or structured queries. Unstructured data is more human-friendly than machine-friendly

**References:**

- [https://www.webopedia.com/TERM/S/structured\\_data.html](https://www.webopedia.com/TERM/S/structured_data.html)

## **Question 4**

Which statements are correct about the retention of Amazon Elastic Block Store (EBS) volumes when an EC2 instance is terminated? (choose 2)

1. Root EBS volumes are deleted by default
2. Root EBS volumes are retained by default
3. Non-root EBS volumes are deleted by default
4. Non-root EBS volumes are retained by default
5. EBS volumes are always deleted

Answer: 1,4

**Explanation:**

- The root EBS device is the volume the OS boots from. Root EBS volumes are deleted on termination by default.
- Extra non-boot volumes are not deleted on termination by default

**References:**

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

## **Question 5**

What modifications can be made to an IAM access key once created? (choose 2)

1. Change user
2. Make active
3. Add user
4. Change scope
5. Make inactive

Answer: 2,5

**Explanation:**

- All you can do with an access key once it has been generated is to make active, make inactive, or delete the access key

**References:**

- [https://docs.aws.amazon.com/IAM/latest/UserGuide/id\\_credentials\\_access-keys.html](https://docs.aws.amazon.com/IAM/latest/UserGuide/id_credentials_access-keys.html)

## **Question 6**

Which options are available for transferring domains with Route 53?  
(choose 2)

1. You can transfer domains to Route 53 if the Top Level Domain (TLD) is supported
2. You can transfer a domain from Route 53 to another registrar through the console
3. You can transfer any domains to Route 53
4. You can transfer Route 53 hosted domains to another account
5. You must register domains through Route 53, you cannot transfer them

Answer: 1,4

**Explanation:**

- You can transfer domains to Route 53 **only** if the Top Level Domain (TLD) is supported
- You can transfer a domain from Route 53 to another registrar by contacting AWS support, you cannot do it through the console
- You can transfer a domain to another account in AWS however it does not migrate the hosted zone by default (optional)

#### **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 7**

When connecting to AWS over AWS Direct Connect, what the is scope of connectivity enabled? (choose 2)

1. You can connect to all public and private services in all regions
2. You can connect to an individual AZ
3. You can connect to all AZs within the VPC of the local region
4. You can connect to a specified IP subnet
5. You can connect to public services in remote regions

Answer: 3,5

#### **Explanation:**

- With Direct Connect you have a private connection to a specific region. You can access all resources within the local region over a private virtual interface (VIF). You can also connect to the public services in other regions using a public VIF and IPsec
- You can connect to private VPCs in other regions too, though for that you need a Direct Connect Gateway

#### **References:**

- <https://digitalcloud.training/certification-training/aws-solutions-architect-associate/networking-and-content-delivery/aws-direct-connect/>
- [https://docs.aws.amazon.com/directconnect/latest/UserGuide/remote\\_regions.html](https://docs.aws.amazon.com/directconnect/latest/UserGuide/remote_regions.html)

## **Question 8**

What are the primary benefits of using AWS Elastic Load Balancing?  
(choose 2)

1. High availability
2. Elasticity
3. Automation
4. Caching
5. Regional resilience

Answer: 1,2

### **Explanation:**

- High availability – ELB automatically distributes traffic across multiple EC2 instances in different AZs within a region
- Elasticity – ELB is capable of handling rapid changes in network traffic patterns
- An ELB can distribute incoming traffic across your Amazon EC2 instances in a single Availability Zone or multiple Availability Zones, but not across regions (for regional resilience)
- Automation is not a primary benefit of ELB
- Caching is not a benefit of ELB

### **References:**

- <https://digitalcloud.training/2018/10/19/cloud-computing-basics-compute/>

## **Question 9**

Which AWS service lets connected devices easily and securely interact with cloud applications and other devices?

1. Amazon Workspaces
2. AWS Directory Service
3. AWS IoT Core
4. AWS SMS

Answer: 3

### **Explanation:**

- AWS IoT Core is a managed cloud service that lets connected devices easily and securely interact with cloud applications and other devices. AWS IoT Core can support billions of devices and trillions of messages, and can process and route those messages to AWS endpoints and to other devices reliably and securely
- AWS Directory Service for Microsoft Active Directory, also known as AWS Managed Microsoft AD, enables your directory-aware workloads and AWS resources to use managed Active Directory in the AWS Cloud
- Amazon WorkSpaces is a managed, secure cloud desktop service
- AWS Server Migration Service (SMS) is an agentless service which makes it easier and faster for you to migrate thousands of on-premises workloads to AWS

### **References:**

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

## **Question 10**

Which AWS service can be used to prepare and load data for analytics using an extract, transform and load (ETL) process?

1. AWS Lambda

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

Answer: 2

**Explanation:**

- AWS Glue is a fully managed extract, transform, and load (ETL) service that makes it easy for customers to prepare and load their data for analytics
- 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 Athena is an interactive query service that makes it easy to analyze data in Amazon S3 using standard SQL
- AWS Lambda is a serverless application that runs code as functions in response to events

**References:**

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

## **Question 11**

Under the AWS Shared Responsibility Model, which of the following is the customer NOT responsible for?

1. Adding firewall rules to security groups and network ACLs
2. Applying encryption to data stored on an EBS volume
3. Applying bucket policies to share Amazon S3 data
4. Installing firmware updates on host servers

Answer: 4

**Explanation:**

- AWS customers are not responsible for installing firmware updates on the underlying infrastructure
- AWS customers must protect their AWS services through policies, encryption, and firewall rules

**References:**

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

## **Question 12**

What is the availability model of Amazon DynamoDB?

1. Data is synchronously replicated across all regions
2. Data is asynchronously replicated across all regions
3. Data is synchronously replicated across 3 facilities in a region
4. Data is asynchronously replicated across 3 facilities in a region

Answer: 3

**Explanation:**

- Amazon DynamoDB stores three geographically distributed replicas of each table to enable high availability and data durability. Data is synchronously replicated across 3 facilities (AZs) in a region

**References:**

- <https://digitalcloud.training/certification-training/aws-solutions-architect-associate/database/amazon-dynamodb/>

## **Question 13**

Which of the following constitute the five pillars for the AWS Well-Architected Framework? (choose 2)

1. Operational excellence, security, and reliability

2. Operational excellence, elasticity and scalability
3. Cost prioritization, and cost optimization
4. Data consistency, and cost optimization
5. Performance efficiency, and cost optimization

Answer: 1,5

**Explanation:**

- The five pillars of the AWS Well-Architected Framework are operational excellence, security, reliability, performance efficiency, and cost optimization

**References:**

- <https://aws.amazon.com/blogs/apn/the-5-pillars-of-the-aws-well-architected-framework/>

## **Question 14**

Which type of storage stores objects comprised of key, value pairs?

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

Answer: 4

**Explanation:**

- Amazon S3 is an object-based storage system that stores objects that are comprised of key, value pairs
- Amazon DynamoDB stores items, not objects, based on key, value pairs
- Amazon EBS is a block-based storage system
- Amazon EFS is a file-based storage system



**References:**

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

**Question 15**

What is the relationship between subnets and availability zones?

1. You can create one or more subnets within each availability zone
2. Subnets span across multiple availability zones
3. You can create one subnet per availability zone
4. Subnets contain one or more availability zones

Answer: 1

**Explanation:**

- You can create one or more subnets within each availability zone but subnets cannot span across availability zones

**References:**

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

**Question 16**

What is an Edge location?

1. A public endpoint for Amazon S3
2. A content delivery network (CDN) endpoint for CloudFront
3. A virtual private gateway for VPN
4. A VPC peering connection endpoint

Answer: 2

**Explanation:**

- Edge locations are Content Delivery Network (CDN) endpoints for CloudFront. There are many more edge locations than regions

### **References:**

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

## **Question 17**

Which service provides alerts and remediation guidance when AWS is experiencing events that may impact you?

1. AWS Trusted Advisor
2. AWS Inspector
3. AWS Personal Health Dashboard
4. AWS Shield

Answer: 3

### **Explanation:**

- AWS Personal Health Dashboard provides alerts and remediation guidance when AWS is experiencing events that may impact you
- Trusted Advisor is an online resource that helps to 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 Shield is a managed Distributed Denial of Service (DDoS) protection service

### **References:**

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

## **Question 18**

Which AWS services form the app-facing services of the AWS serverless infrastructure? (choose 2)

1. AWS Step Functions
2. AWS Lambda
3. Amazon API Gateway
4. Amazon DynamoDB
5. Amazon EFS

Answer: 2,3

### **Explanation:**

- AWS Lambda and Amazon API Gateway are both app-facing components of the AWS Serverless infrastructure
- Amazon DynamoDB and EFS are database and storage services of the serverless infrastructure
- AWS Step Functions is an orchestration service

### **References:**

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

## **Question 19**

Which type of EBS volumes can be encrypted?

1. Non-root volumes only
2. Both non-root and root if launched from an encrypted AMI
3. Only non-root volumes created from snapshots
4. Any volume can have encryption applied at launch time

Answer: 2

### **Explanation:**

- You can encrypt non-root volumes at launch time. Root volumes (boot volumes) can only be encrypted if you create the instance from an encrypted AMI

**References:**

- <https://aws.amazon.com/blogs/aws/new-encrypted-ebs-boot-volumes/>

## **Question 20**

Which AWS service enables developers and data scientists to build, train, and deploy machine learning models?

1. Amazon Rekognition
2. Amazon Comprehend
3. Amazon SageMaker
4. Amazon MQ

Answer: 3

**Explanation:**

- Amazon SageMaker is a fully-managed platform that enables developers and data scientists to quickly and easily build, train, and deploy machine learning models at any scale. Amazon SageMaker removes all the barriers that typically slow down developers who want to use machine learning
- Amazon Comprehend is a natural language processing (NLP) service that uses machine learning to find insights and relationships in text
- Amazon Rekognition makes it easy to add image and video analysis to your applications
- Amazon MQ is a managed message broker service for Apache ActiveMQ that makes it easy to set up and operate message brokers in the cloud

**References:**

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

## **Question 21**

What is the name of the online, self-service portal that AWS provides to enable customers to view reports and, such as PCI reports, and accept agreements?

1. AWS Compliance Portal
2. AWS Documentation Portal
3. AWS Artifact
4. AWS DocuFact

Answer: 3

### **Explanation:**

- AWS Artifact is your go-to, central resource for compliance-related information that matters to you. It provides on-demand access to AWS' security and compliance reports and select online agreements. Reports available in AWS Artifact include our Service Organization Control (SOC) reports, Payment Card Industry (PCI) reports, and certifications from accreditation bodies across geographies and compliance verticals that validate the implementation and operating effectiveness of AWS security controls.
- Agreements available in AWS Artifact include the Business Associate Addendum (BAA) and the Nondisclosure Agreement (NDA)
- All other options are made up and do not exist

### **References:**

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

## **Question 22**

Which AWS services have a global (rather than regional) scope? (choose 2)

1. Amazon S3
2. AWS WAF
3. AWS Lambda
4. AWS CloudFront
5. Amazon EFS

Answer: 2,4

### **Explanation:**

- AWS WAF and AWS CloudFront are both services that are global in scope. When you configure these services in the AWS management console you will see that the scope is set to "Global"
- All other services listed are regional in scope. When you configure these through the AWS management console you will need to select a region and will see the name of the region listed instead of "Global"
- NOTE: S3 uses a global namespace, meaning that bucket names must be unique globally. However, you still create buckets within a region

### **References:**

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

## **Question 23**

What is the name of the AWS managed Docker registry service used by the Amazon Elastic Container Service (ECS)?

1. EC2 Container Registry
2. ECS Container Registry
3. Docker Container Registry

#### 4. Docker Image Repository

Answer: 1

**Explanation:**

- The EC2 container registry (ECR) is a managed AWS Docker registry service for storing, managing and deploying Docker images

**References:**

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

### **Question 24**

What are two benefits of using AWS Lambda? (choose 2)

1. No servers to manage
2. Integrated snapshots
3. Continuous scaling (scale out)
4. Flexible operating system choices
5. Open source software

Answer: 1,3

**Explanation:**

- With AWS Lambda you don't have any servers to manage (serverless). Lambda functions scale out rather than up by creating additional functions
- You do not have integrated snapshots (or any persistent storage) with Lambda
- You do not manage the operating system on which the functions run so have no choice of software
- Lambda is AWS proprietary not open source

**References:**

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

**Question 25**

What are two correct statements about AWS Organizations with consolidated billing? (choose 2)

1. Multiple bills are provided per organization
2. One bill provided for multiple accounts
3. Linked accounts lose their management independence
4. Volume pricing discounts applied across multiple accounts
5. CloudTrail can be configured per organization

Answer: 2,4

**Explanation:**

- With AWS organizations you create a paying account and linked accounts. One bill is provided for multiple accounts within an organization. Volume pricing discounts can be applied across resources in multiple accounts
- Linked accounts can still be managed independently
- CloudTrail is on a per account basis and per region basis but can be aggregated into a single bucket in the paying account

**References:**

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

**Question 26**

Which of the following statements are true in relation to public facing Elastic Load Balancers? (choose 2)

1. ELB nodes have public IP addresses



2. ELB nodes route traffic to the public IP addresses of EC2 instances
3. ELB nodes have private IP addresses
4. ELB nodes route traffic to the private IP addresses of EC2 instances
5. Does not require an Internet Gateway

Answer: 1,4

**Explanation:**

- ELBs can be configured as public facing or internal only. Public facing load balancers have public IP addresses and require an Internet Gateway to function. The public facing ELBs route traffic to the private IP addresses of EC2 instances

**References:**

- <https://digitalcloud.training/certification-training/aws-solutions-architect-associate/compute/elastic-load-balancing/>

## **Question 27**

Which AWS service can be used to send automated notifications to HTTP endpoints?

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

Answer: 3

**Explanation:**

- Amazon Simple Notification Service (Amazon SNS) is a web service that makes it easy to set up, operate, and send notifications from the cloud. SNS can be used to send automated

or manual notifications to email, mobile (SMS), SQS, and HTTP endpoints

- Amazon Simple Queue Service (SQS) is a fully managed message queuing service that enables you to decouple and scale microservices, distributed systems, and serverless applications
- Amazon SWF helps developers build, run, and scale background jobs that have parallel or sequential step
- Amazon Simple Email Service (Amazon SES) is a cloud-based email sending service designed to help digital marketers and application developers send marketing, notification, and transactional emails

**References:**

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

## **Question 28**

Why would a company choose a NAT Gateway over a NAT instance? (choose 2)

1. They can be additionally used as bastion hosts
2. You can use security groups to assign firewall rules to them
3. They are managed by AWS, not by you
4. Can be used for port forwarding
5. They are elastically scalable

Answer: 3,5

**Explanation:**

- NAT Gateways are elastically scalable, managed by AWS, and provide automatic HA.
- You cannot assign a NAT Gateway to a security group, use them as bastion hosts, or configure port forwarding

**References:**

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

## **Question 29**

What feature of Amazon S3 enables you to set rules to automatically transfer objects between different storage classes at defined time intervals?

1. Elastic Data Management
2. Object Lifecycle Management
3. Auto Lifecycle Scaling
4. S3 Archiving

Answer: 2

### **Explanation:**

- Object lifecycle management can be used with objects so that they are stored cost effectively throughout their lifecycle. Objects can be transitioned to another storage class or expired
- All other options are bogus and do not exist

### **References:**

- <https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/aws-storage/>
- <https://docs.aws.amazon.com/AmazonS3/latest/dev/object-lifecycle-mgmt.html>

## **Question 30**

How can an organization scale out write performance for their Amazon Aurora database across multiple availability zones?

1. Using Read Replicas
2. By implementing a Multi-AZ configuration
3. Using Cross-Region Read replicas
4. By implementing a Multi-Master configuration

Answer: 4

**Explanation:**

- Amazon Aurora Multi-Master is a new feature of the Aurora MySQL-compatible edition that adds the ability to scale out write performance across multiple Availability Zones, allowing applications to direct read/write workloads to multiple instances in a database cluster and operate with higher availability
- Multi-AZ is not a feature that you can configure with Aurora but data is replicated 6 ways, across 3 AZs by default
- Read replicas and cross-region read replicas would not assist with scaling write performance as they only scale read performance

**References:**

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

## **Question 31**

Which cloud model should a company use for an application that has a requirement for a bespoke, specialized hardware configuration?

1. Private
2. Public
3. Hybrid
4. SaaS

Answer: 1

**Explanation:**

- You cannot choose the hardware stack in the public cloud so if you have an application that requires access to bespoke,

specialized hardware you need to build it on-premise in a private cloud

- Hybrid could be an option if other components of the application, such as a web front-end, can run in a public cloud
- Software as a Service (SaaS) is a type of cloud service that delivers a managed application

**References:**

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

## **Question 32**

Which support plan is the lowest cost option that allows unlimited cases to be open?

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

Answer: 2

**Explanation:**

- With the Developer plan you can open unlimited cases
- You can also open unlimited cases with the Business and Enterprise plans but these are more expensive
- You cannot open any support cases with the basic support plan

**References:**

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

## **Question 33**

What are the AWS best practices for storing large items and attributes in Amazon DynamoDB? (choose 2)

1. Compress large attribute values
2. Store large attributes in AWS Lambda
3. Store large attributes as objects in Amazon S3
4. Use ElastiCache to cache large attributes
5. Never store large attributes in DynamoDB

Answer: 1,3

**Explanation:**

- If an application needs to store more data in an item than the DynamoDB size limit permits, you can try compressing one or more large attributes, or you can store them as an object in Amazon Simple Storage Service (Amazon S3) and store the Amazon S3 object identifier in your DynamoDB item
- You cannot store anything in AWS Lambda, it is a service that provides processes (functions) for executing code
- You cannot use ElastiCache to cache the large objects as it is not designed for this purpose

**References:**

- <https://docs.aws.amazon.com/amazondynamodb/latest/developer-guide/bp-use-s3-too.html>

## **Question 34**

How can you configure Amazon Route 53 to monitor the health and performance of your application?

1. Using DNS lookups
2. Using Route 53 health checks
3. Using the Route 53 API
4. Using CloudWatch

Answer: 2

**Explanation:**

- Amazon Route 53 health checks monitor the health and performance of your web applications, web servers, and other resources
- None of the other options provide a solution that can check the health and performance of an application

**References:**

- <https://docs.aws.amazon.com/Route53/latest/DeveloperGuide/dns-failover.html>

## **Question 35**

At which layer of the OSI model does a Classic Load Balancer operate at?

1. Layer 3
2. Layer 4
3. Layer 7
4. Layer 4 & 7

Answer: 4

**Explanation:**

- Classic Load Balancer (CLB) – this is the oldest of the three and provides basic load balancing at both layer 4 and layer 7
- 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

**References:**

- <https://digitalcloud.training/certification-training/aws-solutions-architect-associate/compute/elastic-load-balancing/>

## **Question 36**

Which AWS IAM best practice recommends applying the minimum permissions necessary to perform a task when creating IAM policies?

1. Create individual IAM users
2. Use roles to delegate permissions
3. Grant least privilege
4. Enable MFA for privileged users

Answer: 3

### **Explanation:**

- When you create IAM policies, follow the standard security advice of granting least privilege—that is, granting only the permissions required to perform a task. Determine what users need to do and then craft policies for them that let the users perform only those tasks

### **References:**

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

## **Question 37**

In Amazon EC2, which types of Placement Groups are available? (choose 2)

1. Cluster
2. Affinity
3. Proximity
4. Spread
5. Zone



Answer: 1,4

**Explanation:**

- Placement groups are a logical grouping of instances in one of the following configurations:
- - A cluster placement group is a logical grouping of instances within a single Availability Zone. Cluster placement groups are recommended for applications that benefit from low network latency, high network throughput, or both, and if the majority of the network traffic is between the instances in the group
- - A spread placement group is a group of instances that are each placed on distinct underlying hardware. Spread placement groups are recommended for applications that have a small number of critical instances that should be kept separate from each other

**References:**

- <https://digitalcloud.training/certification-training/aws-solutions-architect-associate/compute/amazon-ec2/>

## **Question 38**

What are the benefits of using IAM roles for applications that run on EC2 instances? (choose 2)

1. Easier to configure than using storing access keys within the EC2 instance
2. More secure than storing access keys within applications
3. Can apply multiple roles to a single instance
4. It is easier to manage IAM roles
5. Role credentials are permanent

Answer: 2,4

**Explanation:**

- Using IAM roles instead of storing credentials within EC2 instances is more secure It is also easier to manage roles

- It is not easier to configure as there are extra steps that need to be completed
- You cannot apply multiple roles to a single instance
- Role credentials are temporary, not permanent, and are rotated automatically

**References:**

- [https://docs.aws.amazon.com/IAM/latest/UserGuide/id\\_roles\\_user\\_switch-role-ec2.html](https://docs.aws.amazon.com/IAM/latest/UserGuide/id_roles_user_switch-role-ec2.html)

## **Question 39**

With which service can a developer upload code from a Git repository and have the service handle the end-to-end deployment of the resources?

1. AWS CodeDeploy
2. AWS Elastic Beanstalk
3. Amazon ECS
4. AWS CodeCommit

Answer: 2

**Explanation:**

- AWS Elastic Beanstalk can be used to quickly deploy and manage applications in the AWS Cloud. Developers upload applications and Elastic Beanstalk handles the deployment details of capacity provisioning, load balancing, auto-scaling, and application health monitoring
- AWS CodeCommit is a fully-managed source control service that hosts secure Git-based repositories
- 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 is a managed service for running Docker containers

**References:**

- <https://digitalcloud.training/certification-training/aws-solutions-architect-associate/compute/aws-elastic-beanstalk/>

## **Question 40**

Which service can you use to monitor, store and access log files generated by EC2 instances and on-premises servers?

1. Amazon CloudTrail
2. AWS OpsWorks
3. Amazon CloudWatch Logs
4. Amazon Kinesis

Answer: 3

**Explanation:**

- You can use Amazon CloudWatch Logs to monitor, store, and access your log files from Amazon Elastic Compute Cloud (Amazon EC2) instances, AWS CloudTrail, Route 53, and other sources
- You can then retrieve the associated log data from CloudWatch Logs
- Amazon CloudTrail is used for recording a history of API actions taken on your account.
- Amazon Kinesis is a set of services used for collecting, processing and analyzing streaming data

**References:**

- <https://docs.aws.amazon.com/AmazonCloudWatch/latest/logs/WhatIsCloudWatchLogs.html>

## **Question 41**

Which type of Amazon RDS automated backup allows you to restore the database with a granularity of as little as 5 minutes?

1. Snapshot backup
2. Full backup
3. Incremental backup
4. Point-in-time recovery

Answer: 4

### **Explanation:**

- You can restore a DB instance to a specific point in time with a granularity of 5 minutes. RDS uses transaction logs which it uploads to Amazon S3 to do this

### **References:**

- [https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/USER\\_PIT.html](https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/USER_PIT.html)

## **Question 42**

Which combination of AWS services could be used to deploy a stateless web application that can automatically and elastically scale?

1. EC2, Auto Scaling and Elastic Load Balancing
2. EC2, CloudFront and RDS
3. EC2, DynamoDB and ElastiCache
4. EC2, EBS and Auto Scaling

Answer: 1

### **Explanation:**

- Whenever EC2 is included you need to use Auto Scaling to automatically scale the number of instances which only leaves 2

potential answers. EBS volumes can only be mounted to a single instance and so data cannot be shared therefore that rules out the other potential answer. Therefore, EC2 with Auto Scaling and an ELB sitting in front is the correct solution

- DynamoDB can be used for storing session state for stateless web applications but is not necessary for the answer

**References:**

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

## **Question 43**

Which DynamoDB feature provides in-memory acceleration to tables that result in significant performance improvements?

1. Amazon ElastiCache
2. Amazon DynamoDB Accelerator (DAX)
3. Amazon EFS
4. Amazon CloudFront

Answer: 2

**Explanation:**

- Amazon DynamoDB Accelerator (DAX) is a fully managed, highly available, in-memory cache for DynamoDB that delivers up to a 10x performance improvement – from milliseconds to microseconds – even at millions of requests per second
- DAX does all the heavy lifting required to add in-memory acceleration to your DynamoDB tables, without requiring developers to manage cache invalidation, data population, or cluster management

**References:**

- <https://aws.amazon.com/dynamodb/dax/>

## **Question 44**

A developer needs a way to automatically provision a collection of AWS resources. Which AWS service is primarily used for deploying infrastructure as code?

1. AWS Elastic Beanstalk
2. Amazon CloudFormation
3. AWS CodeDeploy
4. Jenkins

Answer: 2

### **Explanation:**

- AWS CloudFormation is a service that gives developers and businesses an easy way to create a collection of related AWS resources and provision them in an orderly and predictable fashion. AWS CloudFormation provides a common language for you to describe and provision all the infrastructure resources in your cloud environment. Think of CloudFormation as deploying infrastructure as code
- Elastic Beanstalk is more focussed on deploying applications on EC2 (PaaS)
- 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
- Jenkins deploys infrastructure as code but is not an AWS service

### **References:**

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

## **Question 45**

Select the statements that are correct in relation to Amazon Route 53?  
(choose 2)

1. Amazon Route 53 is an internal elastic load balancer
2. You can register domain names via Amazon Route 53
3. Amazon Route 53 does not support SPF records
4. Amazon Route 53 supports Alias and CNAME records
5. Amazon Route 53 can be used to connect on-premises data centers to the AWS cloud

Answer: 2,4

### **Explanation:**

- Amazon Route 53 is a highly available and scalable Domain Name System (DNS) service
- Route 53 offers the following functions:
  - - Domain name registry
  - - DNS resolution
  - - Health checking of resources
- Health checks verify Internet connected resources are reachable, available and functional
- Routing policies include Simple, Weighted, Latency-based, Failover and Geo-Location
- Many record types are supported including Alias and CNAME
- Internal elastic load balancing is performed by the Amazon ELB
- It does not support connecting on-premises data centers to the cloud - this is done by Direct Connect

### **References:**

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

## **Question 46**

Assuming you have configured them correctly, which AWS services can scale automatically without intervention? (choose 2)

1. Amazon RDS
2. Amazon EC2
3. Amazon S3
4. Amazon DynamoDB
5. Amazon EBS

Answer: 3,4

### **Explanation:**

- Both S3 and DynamoDB automatically scale as demand dictates. In the case of DynamoDB you can either configure the on-demand or provisioned capacity mode. With on-demand capacity mode DynamoDB automatically adjusts the read and write throughput for you
- EC2 cannot scale automatically. You need to use Auto Scaling to scale the number of EC2 instances deployed
- EBS and RDS do not scale automatically. You must intervene to adjust volume sizes and database instance types to scale these resources

### **References:**

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

## **Question 47**

To reward customers for using their services, what are two ways AWS reduce prices? (choose 2)

1. Volume based discounts when you use more services



2. Reduction in inbound data transfer charges
3. Reduced cost for reserved capacity
4. Discounts for using a wider variety of services
5. Removal of termination fees for customers who spend more

Answer: 1,3

**Explanation:**

- AWS provide volume based discount so that when you use more services you reduce the cost per service. You can also reserve capacity by locking in to fixed 1 or 3 year contracts to get significant discounts
- You never pay for inbound data transfer
- You don't get discounts for using a variety of services, only when you use more services
- There are never termination fees with AWS

**References:**

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

## **Question 48**

How can a company connect from their on-premises network to VPCs in multiple regions using private connections?

1. AWS Managed VPN
2. AWS Direct Connect Gateway
3. Amazon CloudFront
4. Inter-Region VPC Peering

Answer: 2

**Explanation:**

- You can use an AWS Direct Connect gateway to connect your AWS Direct Connect connection over a private virtual interface to one or more VPCs in your account that are located in the same or different Regions
- AWS Managed VPN uses the public Internet and is therefore not a private connection
- Amazon CloudFront is a content delivery network used for caching data
- Inter-Region VPC peering does not help you to connect from an on-premise network

**References:**

- <https://docs.aws.amazon.com/directconnect/latest/UserGuide/direct-connect-gateways.html>

**Question 49**

Which AWS components aid in the construction of fault-tolerant applications? (choose 2)

1. Elastic IP addresses
2. ARNs
3. AMIs
4. Tags
5. Block device mappings

Answer: 1,3

**Explanation:**

- Elastic IP addresses can be easily remapped between EC2 instances in the event of a failure. Amazon Machine Images (AMIs) can be used to quickly launch replacement instances when there is a failure

- Amazon Resource Names (ARNs), tags and block device mappings don't really help with fault tolerance

**References:**

- <https://aws.amazon.com/whitepapers/designing-fault-tolerant-applications/>

## **Question 50**

What offerings are included in the Amazon Lightsail product set? (choose 2)

1. Virtual Private Server
2. NoSQL database
3. Managed MySQL database
4. Object storage
5. Serverless functions

Answer: 1,3

**Explanation:**

- Amazon Lightsail provides an easy, low cost way to consume cloud services without needing the skill set for using VPC resources. The product set includes virtual private servers (instances), managed MySQL databases, HA storage, and load balancing
- You can connect to other AWS services such as S3, DynamoDB, and CloudFront, however these are not part of the Lightsail product range

**References:**

- <https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/aws-compute/>
- <https://aws.amazon.com/lightsail/features/>

## **Question 51**

Which of the following are advantages of using the AWS cloud computing over legacy IT? (choose 2)

1. You are able to pass responsibility for the availability of your application to AWS
2. You don't need to worry about over provisioning as you can elastically scale
3. You don't need to patch your operating systems
4. You can bring new applications to market faster
5. You can bring services closer to your end users

Answer: 2,4

### **Explanation:**

- With cloud computing you no longer need to guess about capacity as you can elastically scale. This means you don't end up overprovisioning but instead react to the load on your servers. You can also be faster and more agile with development and release of applications
- You do not pass responsibility for your application to AWS. AWS runs the infrastructure but you still manage the application
- You still need to patch your own operating systems
- The cloud is centralized so you won't necessarily bring services closer to your end users

### **References:**

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

## **Question 52**

Which type of Amazon EBS volume do AWS suggest customers use for the boot volume of most workloads?

1. General Purpose SSD

2. Provisioned IOPS SSD
3. Throughput Optimized HDD
4. Cold HDD

Answer: 1

**Explanation:**

- AWS suggest that the General Purpose SSD is used for the boot volume of most workloads
- Provisioned IOPS SSD is for high performance applications that require sustained IOPS
- Throughput Optimized HDD is for streaming workloads with fast throughput requirements
- Cold HDD is the lowest cost HDD and is for infrequently accessed data

**References:**

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

## **Question 53**

What charges are applicable to Amazon S3 Standard storage class? (choose 2)

1. Per GB/month storage fee
2. Retrieval fee
3. Minimum capacity charge per object
4. Data ingress
5. Data egress

Answer: 1,5

**Explanation:**

- With the standard storage class, you pay a per GB/month storage fee, and data transfer out of S3
- Standard-IA and One Zone-IA have a minimum capacity charge per object
- Standard-IA, One Zone-IA, and Glacier also have a retrieval fee
- You don't pay for data into S3 under any storage class

**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 54**

An engineer launched a new EC2 instance and it was immediately terminated. What is the most likely reason?

1. The user does not have the permissions to launch EC2 instances
2. The AZ does not have any capacity left
3. The account has reached its On-Demand instance limit for the region
4. The AMI was deleted

Answer: 3

**Explanation:**

- You are limited to running up to a total of 20 On-Demand instances across the instance family, purchasing 20 Reserved Instances, and requesting Spot Instances per your dynamic Spot limit per region
- If a user did not have permissions to launch an instance then it would not launch at all, rather than launching and then terminating

- If the AZ did not have capacity, or the AMI was deleted the instance would not launch

**References:**

- [https://aws.amazon.com/ec2/faqs/#How\\_many\\_instances\\_can\\_I\\_run\\_in\\_Amazon\\_EC2](https://aws.amazon.com/ec2/faqs/#How_many_instances_can_I_run_in_Amazon_EC2)

## **Question 55**

How can a company connect their EC2 instances in one region with EC2 instances in another region using private IP addresses?

1. Inter-Region VPC Peering
2. AWS Direct Connect
3. AWS Managed VPN
4. VPC Peering

Answer: 1

**Explanation:**

- Amazon EC2 now allows peering relationships to be established between Virtual Private Clouds (VPCs) across different AWS regions. Inter-Region VPC Peering allows VPC resources like EC2 instances, RDS databases and Lambda functions running in different AWS regions to communicate with each other using private IP addresses, without requiring gateways, VPN connections or separate network appliances
- VPC Peering is used to peer VPCs within the same region
- AWS Direct Connect is a private connection from an on-premise network to an AWS region, it does not enable connectivity between regions (unless you use Direct Connect Gateway)

**References:**

- <https://aws.amazon.com/about-aws/whats-new/2017/11/announcing-support-for-inter-region-vpc-peering/>

## **Question 56**

Which of the following descriptions is incorrect in relation to the design of Availability Zones?

1. AZ's have direct, low-latency, high throughput and redundant network connections between each other
2. Each AZ is designed as an independent failure zone
3. AZs are physically separated within a typical metropolitan region and are located in lower risk flood plains
4. Each subnet in a VPC is mapped to all AZs in the region

Answer: 4

### **Explanation:**

- Subnets are created within a single AZ and do not get mapped to multiple AZs

### **References:**

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

## **Question 57**

How can a systems administrator connect to a Linux instance in a private subnet using the Internet?

1. Deploy a bastion host in a public subnet
2. Add a public elastic IP address to the instance
3. Use a NAT Gateway
4. Update the security group to allow the traffic

Answer: 1



**Explanation:**

- When you have an EC2 instance in a private subnet you cannot add a public elastic IP address to it or update security group rules to allow connectivity. Instead you must deploy a bastion host server into a public subnet and use that to jump across from the public subnet to the private subnet
- A NAT Gateway is used to allow instances in a private subnet to access the Internet, it cannot be used for proxying inbound connections

**References:**

- <https://aws.amazon.com/blogs/security/securely-connect-to-linux-instances-running-in-a-private-amazon-vpc/>

**Question 58**

When designing a VPC, what is the purpose of an Internet Gateway?

1. Provides Internet access for EC2 instances in private subnets
2. Enables Internet communications for instances in public subnets
3. It's a bastion host for inbound management connections
4. It's used for making VPN connections to a VPC

Answer: 2

**Explanation:**

- An internet gateway is a horizontally scaled, redundant, and highly available VPC component that allows communication between instances in your VPC and the internet. It therefore imposes no availability risks or bandwidth constraints on your network traffic
- An internet gateway serves two purposes: to provide a target in your VPC route tables for internet-routable traffic, and to perform network address translation (NAT) for instances that have been assigned public IPv4 addresses

- You cannot use an Internet Gateway as a bastion host, deploy an EC2 instance in a public subnet for this purpose
- You cannot connect instances in a private subnet to the Internet using an Internet Gateway, you need a NAT Gateway or NAT Instance for this purpose
- You cannot use the Internet Gateway for making VPN connections to a VPC, you need a Virtual Private Gateway for this purpose

### References:

- <https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/aws-networking/>
- [https://docs.aws.amazon.com/vpc/latest/userguide/VPC\\_Internet\\_Gateway.html](https://docs.aws.amazon.com/vpc/latest/userguide/VPC_Internet_Gateway.html)

## **Question 59**

In Amazon CloudWatch, which of the following Amazon EC2 data points requires a custom metric to monitor?

1. Memory utilization
2. CPU utilization
3. Disk write operations
4. Network packets in

Answer: 1

### **Explanation:**

- The AWS/EC2 namespace includes the following instance metrics:
- CPUUtilization
- DiskReadOps
- DiskWriteOps
- DiskReadBytes
- DiskWriteBytes

- NetworkIn
- NetworkOut
- NetworkPacketsIn
- NetworkPacketsOut

**References:**

- <https://digitalcloud.training/certification-training/aws-solutions-architect-associate/management-tools/amazon-cloudwatch/>

## **Question 60**

Which of the following configuration items are important to enabling an EC2 web server to serve web pages on the Internet? (choose 2)

1. Security group rules configured to allow HTTP/HTTPS
2. A private IP address assigned to the instance
3. Security groups rules configured to allow SSH
4. A public IP address assigned to the instance
5. An established VPN connection

Answer: 1,4

**Explanation:**

- To connect to a web page on a web server you use the HTTP/HTTPS protocol. You therefore need to ensure the instance's security group allows these protocols in an inbound rule
- A public IP address assigned to an instance in a public subnet is required in order to be able to directly access the instance from the Internet. There also needs to be an Internet Gateway attached to the VPC and an entry in the route table for the subnet that points to it
- A private IP address will always be assigned to instances in EC2, but these do not enable access from the Internet

- An established VPN connection is not required, connections will come through an Internet Gateway to a public subnet

**References:**

- <https://digitalcloud.training/2018/10/19/cloud-computing-basics-compute/>

## **Question 61**

How can a company protect their Amazon S3 data from a regional disaster?

1. Archive to Amazon Glacier
2. Use Cross-Region Replication (CRR) to copy to another region
3. Use lifecycle actions to move to another S3 storage class
4. Enable Multi-Factor Authentication (MFA) delete

Answer: 2

**Explanation:**

- The only option here that will help is to use CRR to copy the data to another region. This will provide disaster recovery
- Moving to Glacier or another S3 storage class does not copy the data out of the region
- Enabling MFA delete will not protect the data from a regional disaster

**References:**

- <https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/aws-storage/>
- <https://aws.amazon.com/s3/features/>

## **Question 62**

Which of the following is NOT an AWS service used for transferring large amounts of data into Amazon S3?

1. AWS Snowball

2. AWS Snowmobile
3. S3 Transfer Acceleration
4. AWS DMS

Answer: 4

**Explanation:**

- AWS DMS is used for migrating databases into or within AWS
- All other options are valid services that are used for transferring large amounts of data into Amazon S3

**References:**

- <https://aws.amazon.com/s3/features/>

## **Question 63**

How do AWS charge for Amazon CloudFront? (choose 2)

1. Data transfer out
2. Data transfer in
3. Number of requests
4. Number of users
5. Uptime

Answer: 1,3

**Explanation:**

- With Amazon CloudFront the basic elements you are charged for include the amount of data transfer out and the number of requests. There are additional chargeable items such as invalidation requests, field-level encryption requests, and custom SSL certificates

**References:**

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

## **Question 64**

Which AWS service is part of the suite of "serverless" services and runs code as functions?

1. Amazon ECS
2. Amazon EKS
3. AWS Lambda
4. AWS CodeCommit

Answer: 3

### **Explanation:**

- AWS Lambda is a serverless compute service that runs your code in response to events and automatically manages the underlying compute resources for you. The code you run on AWS Lambda is called a "Lambda function"
- Amazon ECS and EKS are both used for running software containers such as Docker containers
- AWS CodeCommit is a fully-managed source control service that hosts secure Git-based repositories

### **References:**

- <https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/aws-compute/>
- <https://aws.amazon.com/lambda/features/>

## **Question 65**

How do AWS charge for the use of NAT Gateways? (choose 2)

1. Price per gateway hour
2. Price per port

3. Price per GB processed
4. Price per instance session
5. Price per protocol

Answer: 1,3

**Explanation:**

- If you choose to create a NAT gateway in your VPC, you are charged for each "NAT Gateway-hour" that your NAT gateway is provisioned and available. Data processing charges apply for each Gigabyte processed through the NAT gateway regardless of the traffic's source or destination

**References:**

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

# **SET 6: PRACTICE QUESTIONS,**

## **ANSWERS & EXPLANATIONS**

### **Question 1**

What type of cloud computing service type do AWS Elastic Beanstalk and Amazon RDS correspond to?

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

Answer: 2

#### **Explanation:**

- Both Elastic Beanstalk and RDS are services that are managed at the platform level meaning you don't need to manage the infrastructure level yourself. Therefore, tasks like OS management and patching are performed for you
- IaaS is a model where the underlying hardware platform and hypervisor are managed for you and you are delivered tools and interfaces for working with operating system instances
- SaaS is a model where the whole stack is managed for you right up to the application and you are delivered working software that you can customize and populate with data
- Hybrid is a type of cloud delivery model in which you consume both public and private cloud and connect the two together

#### **References:**

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

### **Question 2**



Which types of scaling policies are available when using AWS Auto Scaling? (choose 2)

1. Simple scaling
2. Deferred scaling
3. Agile scaling
4. Step scaling
5. Warm scaling

Answer: 1,4

**Explanation:**

- With AWS Auto Scaling the scaling policies include: simple, scheduled, dynamic, and step scaling
- The other options are bogus and do not exist

**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/aws-auto-scaling/>

### **Question 3**

Which type of Elastic Load Balancer only distributes traffic using the TCP protocol information?

1. Application Load Balancer (ALB)
2. Network Load Balancer (NLB)
3. Classic Load Balancer (CLB)
4. No load balancers operate at the TCP level

Answer: 2

**Explanation:**

- NLBs process traffic at the TCP level (layer 4)
- ALBs process traffic at the HTTP, HTTPS level (layer 7)
- CLBs process traffic at the TCP, SSL, HTTP and HTTPS levels (layer 4 & 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 4

How can a company configure automatic, asynchronous copying of objects in Amazon S3 buckets across regions?

1. This is done by default by AWS
2. By configuring multi-master replication
3. Using cross-region replication
4. Using lifecycle actions

Answer: 3

#### Explanation:

- *Cross-region replication* (CRR) enables automatic, asynchronous copying of objects across buckets in different AWS Regions. Buckets configured for cross-region replication can be owned by the same AWS account or by different account
- Multi-master replication is not something you can do with Amazon S3 (Amazon Aurora has this feature)
- Lifecycle actions cannot be configured to move to another storage class in a different region

#### References:

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

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

## **Question 5**

A web server is being maliciously targeted, how a systems administrator deny access from a list of known attacker IP addresses? (choose 2)

1. Using a local firewall such as iptables
2. Using a rule on the Internet Gateway
3. Using a Security Group deny rule
4. Using a Network ACL deny rule
5. Through VPC route table configuration

Answer: 1,4

### **Explanation:**

- To block access to a known list of IP addresses you can configure a local firewall on the web server or use Network ACL deny rules
- You cannot create deny rules with Security Groups (only allow rules)
- Internet Gateways do not have allow/deny rules and route table configuration could not be used to break connections with specific addresses

### **References:**

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

## **Question 6**

How can a Solutions Architect reduce the latency between end-users and applications or content? (choose 2)

1. Deploy applications in multiple AZs
2. Deploy applications in regions closest to the end-users

3. Use S3 Transfer Acceleration to improve application performance
4. Use Amazon CloudFront to cache content closer to end-users
5. Use larger EC2 instance types for the applications

Answer: 2,4

**Explanation:**

- To reduce latency, which corresponds with the distance over which network communications travel, you should aim to host your applications closer to your end-users. This means deploying them in the closest regions
- Deploying in multiple AZs may create resiliency but won't change latency much as AZs are geographically close to each other
- S3 Transfer Acceleration is used to improve upload speeds for S3 objects and does not affect application performance
- CloudFormation is used for deploying resources through code ("infrastructure as code")
- Using a larger instance type for your application may improve application performance but will not reduce latency

**References:**

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

## **Question 7**

What is an example of scaling vertically?

1. AWS Auto Scaling adding more EC2 instances
2. AWS Lambda adding concurrently executing functions
3. Increasing the instance size with Amazon RDS
4. Adding read replicas to an Amazon RDS database

Answer: 3

**Explanation:**

- A good example of vertical scaling is changing the instance size of an EC2 instance or RDS database to one with more CPU and RAM
- All of the other options are examples of scaling horizontally

**References:**

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

## **Question 8**

To reduce cost, which of the following services support reservations?  
(choose 2)

1. Amazon ElastiCache
2. Amazon CloudFormation
3. Amazon RedShift
4. AWS Elastic Beanstalk
5. Amazon S3

Answer: 1,3

**Explanation:**

- Amazon ElastiCache and Redshift both support reserved nodes
- The use of CloudFormation and Elastic Beanstalk is not chargeable so you can't reserve anything
- Amazon S3 is a pure pay per use service, you cannot reserve capacity

**References:**

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

- [https://d1.awsstatic.com/whitepapers/aws\\_pricing\\_overview.pdf](https://d1.awsstatic.com/whitepapers/aws_pricing_overview.pdf)

## **Question 9**

Which of the following is not a best practice for protecting the root user of an AWS account?

1. Don't share the root user credentials
2. Enable MFA
3. Remove administrative permissions
4. Lock away the AWS root user access keys

Answer: 3

### **Explanation:**

- You cannot remove administrative permissions from the root user of an AWS account. Therefore, you must protect the account through creating a complex password, enabling MFA, locking away access keys (assuming they're even required), and not sharing the account details

### **References:**

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

## **Question 10**

Which AWS database service is a SQL database that supports complex queries and joins?

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

Answer: 4

**Explanation:**

- Amazon RDS is a relational database of the SQL type and can be used for complex queries and joins
- All other options listed are NoSQL types of database which are not suitable for complex queries and joins

**References:**

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

## **Question 11**

You are evaluating AWS services that can assist with creating scalable application environments. Which of the statements below best describes the Elastic Load Balancer service?

1. Helps you ensure that you have the correct number of Amazon EC2 instances available to handle the load for your application
2. A highly available and scalable Domain Name System (DNS) service
3. Automatically distributes incoming application traffic across multiple targets, such as Amazon EC2 instances, containers, and IP addresses
4. A network service that provides an alternative to using the Internet to connect customers' on-premise sites to AWS

Answer: 3

**Explanation:**

- Elastic Load Balancing automatically distributes incoming application traffic across multiple targets, such as Amazon EC2 instances, containers, and IP addresses
- Elastic Load Balancing provides fault tolerance for applications by automatically balancing traffic across targets – Amazon EC2

instances, containers and IP addresses – and Availability Zones while ensuring only healthy targets receive traffic

**References:**

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

## **Question 12**

What are two of the core concepts related to Amazon SNS? (choose 2)

1. Topics
2. Conversations
3. Subscriptions
4. Templates
5. Tables

Answer: 1,3

**Explanation:**

- The core concepts of SNS are:
  - - Topics – how you label and group different endpoints that you send messages to
  - - Subscriptions – the endpoints that a topic sends messages to
  - - Publishers – the person/alarm/event that gives SNS the message that needs to be sent

**References:**

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

## **Question 13**

What types of rules can be defined in a security group? (choose 2)

1. Inbound
2. Deny



3. Tags
4. Outbound
5. Stateful

Answer: 1,4

**Explanation:**

- You can create inbound and outbound rules in a security group
- You can tag a security group but this is not a type of rule
- You cannot create deny rules with a security group, all rules entries allow traffic
- A security group is stateful but this is not a rule type

**References:**

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

## **Question 14**

A Solutions Architect needs to design a cloud-native application architecture using AWS services. What is a typical use case for Amazon Simple Queue Service (SQS)?

1. Providing fault tolerance for EC2 instances
2. Co-ordination of work items between different human and non-human workers
3. Decoupling application components to ensure that there is no dependency on the availability of a single component
4. Running serverless processes as functions

Answer: 3

**Explanation:**

- Amazon Simple Queue Service (SQS) is a fully managed message queuing service that enables you to decouple and scale microservices, distributed systems, and serverless applications

**References:**

- <https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/additional-aws-services-tools/>
- <https://digitalcloud.training/certification-training/aws-solutions-architect-associate/application-integration/amazon-sqs/>

## **Question 15**

Which AWS technology enables you to group resources that share one or more tags?

1. Tag groups
2. Organization groups
3. Resource groups
4. Consolidation groups

Answer: 3

**Explanation:**

- Resource groups make it easy to group resources using the tags that are assigned to them. You can group resources that share one or more tags
- The other options are bogus and do not exist

**References:**

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

## **Question 16**

Which AWS security tool uses an agent installed in EC2 instances and assesses applications for vulnerabilities and deviations from best practices?

1. AWS Trusted Advisor
2. AWS Personal Health Dashboard
3. AWS TCO Calculator
4. AWS Inspector

Answer: 4

**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. Uses an agent installed on EC2 instances
- Trusted Advisor is an online resource that helps to reduce cost, increase performance and improve security by optimizing your AWS environment
- AWS Personal Health Dashboard provides alerts and remediation guidance when AWS is experiencing events that may impact you
- The AWS TCO calculator can be used to compare the cost of running your applications in an on-premises or colocation environment to AWS

**References:**

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

## **Question 17**

You need to provision a single EBS volume that is 500 GiB in size and needs to support 20,000 IOPS. Which EBS volume type will you select?

1. General Purpose SSD
2. Provisioned IOPS SSD
3. Throughput Optimized HDD
4. Cold HDD

Answer: 2

**Explanation:**

- Provisioned IOPS SSD supports up to 50 IOPS per GiB with up to 32,000 IOPS per volume
- General purpose SSD supports 3 IOPS per GiB and can burst up to 3000 IOPS (volumes > 334GB), and a maximum of 10,000 per volume
- The HDD options provide much lower IOPS per volume (500, 250)

**References:**

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

## **Question 18**

What is the easiest way to store a backup of an EBS volume on Amazon S3?

1. Write a custom script to copy the data into a bucket
2. Use S3 lifecycle actions to backup the volume
3. Create a snapshot of the volume
4. Use Amazon Kinesis to process the data and store the results in S3

Answer: 3

**Explanation:**

- All you need to do is create a snapshot as EBS snapshots are stored on S3
- Writing a custom script could work but would not be the easiest method
- You cannot apply S3 lifecycle actions to EBS volumes

- Amazon Kinesis is used for processing streaming data, not data in EBS volumes

**References:**

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

## **Question 19**

Which AWS storage service is accessed using the Network File System (NFS) protocol?

1. Amazon EBS
2. Amazon S3
3. Amazon Instance Store
4. Amazon EFS

Answer: 4

**Explanation:**

- The Amazon Elastic File System (EFS) storage service can be accessed using the NFSv4 protocol
- Amazon EBS and Instance store are both block-based storage systems (not file-based like EFS)
- Amazon S3 is an object-based storage system and is accessed by HTTP/HTTPS

**References:**

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

## **Question 20**

Which of the statements below do not characterize cloud computing?

1. Cloud computing is the on-demand delivery of compute power

2. With cloud computing you get to benefit from massive economies of scale
3. Cloud computing allows you to swap variable expense for capital expense
4. With cloud computing you can increase your speed and agility

Answer: 3

**Explanation:**

- Cloud computing is not a one-off capital expense, it is an ongoing operating expense. The caveat to this is that if you purchase reserved capacity you have an option to partially or fully pay upfront. however, it is still an operating cost as you do not own and depreciate the assets

**References:**

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

## **Question 21**

What are the advantages of running a database service such as Amazon RDS in the cloud versus deploying on-premise? (choose 2)

1. You have full control of the operating system and can install your own operational tools
2. Scalability is improved as it is quicker to implement and there is an abundance of capacity
3. You can use any database software you like, allowing greater flexibility
4. High availability is easier to implement due to built-in functionality for deploying read replicas and multi-AZ
5. There are no costs for replicating data between DBs in different data centers or regions

Answer: 2,4

**Explanation:**

- The advantages of using Amazon RDS include being able to easily scale by increasing your instance type without having to go through a long procurement cycle for getting new hardware or worrying about whether capacity exists on your existing private cloud infrastructure. You can also implement fault tolerance and scalability features through multi-AZ and read replicas easily
- With Amazon RDS you do not have control of the operating system and you cannot use any database software you like as you are restricted to a list of several engines. There are costs for replicating data between AZs and regions so this must be taken into account in any cost analysis

**References:**

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

## **Question 22**

A Solutions Architect is looking for a way to use standard templates for describing and provisioning their infrastructure resources on AWS. Which AWS service can be used in this scenario?

1. Amazon SNS
2. AWS Auto Scaling
3. AWS Elastic Beanstalk
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 Elastic Beanstalk is the fastest and simplest way to get web applications up and running on AWS. It is more of a PaaS service and is focused on web applications not infrastructure
- Auto Scaling automates the process of adding (scaling up) OR removing (scaling down) EC2 instances based on the traffic demand for your application
- Amazon Simple Notification Service (Amazon SNS) is a web service that makes it easy to set up, operate, and send notifications from the cloud

#### **References:**

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

## **Question 23**

Which type of Elastic Load Balancer allows you to route traffic to instances based on the URL path of the HTTP header?

1. Application Load Balancer (ALB)
2. Network Load Balancer (NLB)
3. Classic Load Balancer (CLB)
4. This is not supported with any type of ELB

Answer: 1

#### **Explanation:**

- Application load balancers allow you to use content-based routing to direct traffic to instances based on the host field or URL path of the HTTP header
- No other type of load balancer supports path-based routing

#### **References:**



- <https://digitalcloud.training/certification-training/aws-solutions-architect-associate/compute/elastic-load-balancing/>
- <https://docs.aws.amazon.com/elasticloadbalancing/latest/application/tutorial-load-balancer-routing.html>

## **Question 24**

What can be used to automatically invoke an AWS Lambda function?  
(choose 2)

1. Changes to an Amazon S3 bucket
2. Creation of an IAM user
3. An EC2 instance is terminated
4. Messages added to an Amazon SQS queue
5. Data is written to an Amazon EBS volume

Answer: 1,4

### **Explanation:**

- Lambda functions can be invoked in response to events. These events include objects being created or deleted in an Amazon S3 bucket or messages being added to an SQS queue
- A list of possible event sources is included in the reference link below

### **References:**

- <https://docs.aws.amazon.com/lambda/latest/dg/invoking-lambda-function.html#supported-event-source-s3>

## **Question 25**

Which of the following are pillars from the five pillars of the AWS Well-Architected Framework? (Choose 2)

1. Resilience
2. Operational excellence

3. Confidentiality
4. Economics
5. Performance efficiency

Answer: 2,5

**Explanation:**

- The five pillars of the AWS Well-Architected Framework are operation excellence, security, reliability, performance efficiency, and cost optimization

**References:**

- <https://aws.amazon.com/blogs/apn/the-5-pillars-of-the-aws-well-architected-framework/>

## **Question 26**

Up to what layer of the OSI model does AWS Web Application Firewall operate?

1. Layer 3
2. Layer 4
3. Layer 5
4. Layer 7

Answer: 4

**Explanation:**

- The AWS Web Application Firewall operates up to the application layer (layer 7). You can use AWS WAF to create custom rules that block common attack patterns, such as SQL injection or cross-site scripting, and rules that are designed for your specific application

**References:**

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

## **Question 27**

What do you need to log into the AWS console?

1. User name and password
2. Key pair
3. Access key and secret ID
4. Certificate

Answer: 1

### **Explanation:**

- You can log into the AWS console using a user name and password
- You cannot log in to the AWS console using a key pair, access key & secret ID or certificate

### **References:**

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

## **Question 28**

Your manager has asked you to explain the benefits of using IAM groups. Which of the below statements are valid benefits? (choose 2)

1. You can restrict access to the subnets in your VPC
2. Groups let you specify permissions for multiple users, which can make it easier to manage the permissions for those users
3. Provide the ability to create custom permission policies
4. Enables you to attach IAM permission policies to more than one user at a time
5. Provide the ability to nest groups to create an organizational hierarchy

Answer: 2,4

**Explanation:**

- Groups are collections of users and have policies attached to them
- A group is not an identity and cannot be identified as a principal in an IAM policy
- Use groups to assign permissions to users
- Use the principal of least privilege when assigning permissions
- You cannot nest groups (groups within groups)

**References:**

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

## **Question 29**

Which of the authentication options below can be used to authenticate using AWS APIs? (choose 2)

6. Key pairs
1. Access keys
2. Server passwords
3. Security groups
4. Server certificates

Answer: 2,5

**Explanation:**

- Key pairs are used for encrypting logon information when accessing EC2 instances
- Access keys are a combination of an access key ID and a secret access key
- A server password cannot be used to authenticate with an API

- Server certificates are SSL/TLS certificates that you can use to authenticate with some AWS services
- Security groups are an instance-level firewall used for controlling access to AWS resources

**References:**

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

## **Question 30**

When using Amazon Kinesis Data Streams, where can a consumer store their results? (choose 2)

1. Amazon S3
2. Amazon RDS
3. Amazon DynamoDB
4. Amazon ECS
5. Amazon EBS

Answer: 1,3

**Explanation:**

- Kinesis Data Streams enables you to build custom applications that process or analyze streaming data for specialized needs. Producers continually push data to Kinesis Data Streams and Consumers process the data in real time. Consumers can store their results using an AWS service such as Amazon DynamoDB, Amazon Redshift, or Amazon S3

**References:**

- <https://digitalcloud.training/certification-training/aws-solutions-architect-associate/analytics/amazon-kinesis/>

## **Question 31**

A company wants to use their on-premise Active Directory service to authenticate with applications on the AWS cloud. Which AWS service can be used to connect their on-premise AD to AWS?

1. Simple AD
2. AD Connector
3. IAM Connector
4. RADIUS

Answer: 2

**Explanation:**

- AD Connector is a directory gateway for redirecting directory requests to your on-premise Active Directory. AD Connector eliminates the need for directory synchronization and the cost and complexity of hosting a federation infrastructure. Connects your existing on-premise AD to AWS
- Simple AD is an inexpensive Active Directory-compatible service with common directory features. It is a standalone, fully managed directory in the AWS cloud. It does not connect your on-premise AD to AWS
- IAM connector does not exist
- Remote Authentication Dial-In User Service (RADIUS) is a networking protocol, operating on port 1812 that provides centralized Authentication, Authorization, and Accounting (AAA or Triple A) management for users who connect and use a network service. It is not an AWS service

**References:**

- <https://digitalcloud.training/certification-training/aws-solutions-architect-associate/security-identity-compliance/aws-directory-service/>

## **Question 32**

Which type of Elastic Load Balancer only distributes traffic using the HTTP, and HTTPS protocol information?

1. Application Load Balancer (ALB)
2. Network Load Balancer (NLB)
3. Classic Load Balancer (CLB)
4. No load balancers operate at the TCP level

Answer: 1

**Explanation:**

- ALBs process traffic at the HTTP, HTTPS level (layer 7)
- NLBs process traffic at the TCP level (layer 4)
- CLBs process traffic at the TCP, SSL, HTTP and HTTPS levels (layer 4 & 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 33**

A company is currently running containers using Docker and Kubernetes. The company are interested in consuming a managed Kubernetes service so they don't need to maintain their own implementation. Which AWS service can they use?

1. Amazon ECS
2. Amazon EC2
3. Amazon EKS
4. Amazon EBS

Answer: 3

**Explanation:**

- Amazon Elastic Container Service for Kubernetes (EKS) is a managed Kubernetes service that makes it easy for you to run Kubernetes on AWS without needing to install, operate, and maintain your own Kubernetes control plane
- Amazon Elastic Container Service (ECS) is used for running Docker containers but is not a managed Kubernetes service
- Amazon EC2 is used for running operating system instances, not containers (though you could build your own Docker/Kubernetes implementation on an EC2 instance)
- Amazon Elastic Block Store (EBS) provides block storage volumes

**References:**

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

## **Question 34**

You need to connect your company's on-premise network into AWS and would like to establish an AWS managed VPN service. Which of the following configuration items needs to be setup in your company side of the connection?

1. A Virtual Private Gateway
2. A Customer Gateway
3. A Network Address Translation device
4. A Firewall

Answer: 2

**Explanation:**

- A *customer gateway* is a physical device or software application on your side of the VPN connection



- A *virtual private gateway* is the VPN concentrator on the Amazon side of the VPN connection. You create a virtual private gateway and attach it to the VPC from which you want to create the VPN connection
- NAT devices and firewalls are not required for an AWS managed VPN

**References:**

- <https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/aws-networking/>
- [https://docs.aws.amazon.com/vpc/latest/userguide/VPC\\_VPN.html#VPN](https://docs.aws.amazon.com/vpc/latest/userguide/VPC_VPN.html#VPN)

## **Question 35**

How can you deploy your EC2 instances so that if a single data center fails you still have instances available?

1. Across regions
2. Across subnets
3. Across Availability Zones
4. Across VPCs

Answer: 3

**Explanation:**

- An AZ spans one or more data centers and each AZ is physically isolated from other AZs and connected by high speed networking. If you want to deploy a highly available application you should spread your instances across AZs and they will be resilient to the failure of a single DC
- Subnets are created within AZs. Therefore, if you deploy resources into multiple subnets within an AZ and a data center fails, you may lose all of your instances
- You could deploy your instances across separate regions but this is not necessary to create a highly available application and

introduces complexity and cost. For example, you may need multiple ELBs (one per region), complex name resolution and potential data transfer charges

**References:**

- <https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/aws-global-infrastructure/>
- <https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/using-regions-availability-zones.html>

## **Question 36**

When using an Application Load Balancer (ALB), what protocols can be selected for instance health checks? (choose 2)

1. HTTP
2. SSL
3. HTTPS
4. TCP
5. ICMP

Answer: 1,3

**Explanation:**

- The Classic Load Balancer (CLB) supports health checks on HTTP, TCP, HTTPS and SSL
- The Application Load Balancer (ALB) only supports health checks on HTTP and HTTPS

**References:**

- <https://digitalcloud.training/certification-training/aws-solutions-architect-associate/compute/elastic-load-balancing/>

## **Question 37**

How can a systems administrator specify a script to be run on an EC2 instance during launch?

1. Metadata
2. User Data
3. Run Command
4. AWS Config

Answer: 2

**Explanation:**

- When you launch an instance in Amazon EC2, you have the option of passing user data to the instance that can be used to perform common automated configuration tasks and even run scripts after the instance starts
- You can pass two types of user data to Amazon EC2: shell scripts and cloud-init directives
- User data is data that is supplied by the user at instance launch in the form of a script
- User data is limited to 16KB
- User data and meta data are not encrypted

**References:**

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

## **Question 38**

How can a company facilitate the sharing of data over private connections between two accounts they own within a region?

1. Create an internal ELB
2. Create a subnet peering connection
3. Create a VPC peering connection
4. Configure matching CIDR address ranges

Answer: 3

**Explanation:**

- A VPC peering connection helps you to facilitate the transfer of data. For example, if you have more than one AWS account, you can peer the VPCs across those accounts to create a file sharing network. You can also use a VPC peering connection to allow other VPCs to access resources you have in one of your VPCs
- An internal ELB will not help you to transfer data between accounts
- You cannot peer subnets
- Configuring matching CIDR address ranges will not mean you can route between accounts. Also, you cannot peer with an account with a matching (or overlapping) address range

**References:**

- <https://digitalcloud.training/certification-training/aws-solutions-architect-associate/networking-and-content-delivery/amazon-vpc/>

## **Question 39**

Which AWS support plans provide 24x7 access to customer service?

1. Basic
2. Business
3. Developer
4. All plans

Answer: 4

**Explanation:**

- All support plans provide 24x7 access to customer service, documentation, whitepapers, and support forums

**References:**

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

## **Question 40**

What advantages does the AWS cloud provide in relation to cost? (choose 2)

1. Fine-grained billing
2. One-off payments for on-demand resources
3. Ability to turn off resources and not pay for them
4. Enterprise licensing discounts
5. Itemized power costs

Answer: 1,3

### **Explanation:**

- With the AWS cloud you get fine-grained billing and can turn off resources you are not using easily and not have to pay for them (pay for what you use model)
- You do not get the option for one-off payments for on-demand resources. You can for reserved instances which can be paid all upfront
- You do not get enterprise licensing discounts from AWS and you do not pay anything for power as the cost is built in

### **References:**

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

## **Question 41**

Which of the following are NOT features of AWS IAM? (choose 2)

1. Shared access to your AWS account
2. Logon using local user accounts

3. Identity federation
4. PCI DSS compliance
5. Charged for what you use

Answer: 2,5

**Explanation:**

- You cannot use IAM to create local user accounts on any system. You are also not charged for what you use, IAM is free to use
- The other options are all features of AWS IAM

**References:**

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

## **Question 42**

Which HTTP code indicates a successful upload of an object to Amazon S3

1. 200
2. 300
3. 400
4. 500

Answer: 1

**Explanation:**

- A HTTP 200 codes indicates a successful upload
- A HTTP 300 code indicates a redirection
- A HTTP 400 code indicates a client error
- A HTTP 500 code indicates a server error

**References:**

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

- [https://en.wikipedia.org/wiki/List\\_of\\_HTTP\\_status\\_codes](https://en.wikipedia.org/wiki/List_of_HTTP_status_codes)

## **Question 43**

Which of the following records are captured by Amazon CloudTrail?  
(choose 2)

1. The identity of the API caller
2. The CPU usage of the instance
3. Custom metrics generated by applications
4. The request parameters
5. Billing information

Answer: 1,4

### **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 about logging and saves a history of API calls for your AWS account
- CloudTrail records account activity and service events from most AWS services and logs the following records:
  - - The identity of the API caller
  - - The time of the API call
  - - The source IP address of the API caller
  - - The request parameters
  - - The response elements returned by the AWS service
- All other options are metrics that can be recorded using CloudWatch

### **References:**

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

## **Question 44**

Which AWS database service is schema-less and can be scaled dynamically without incurring downtime?

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

Answer: 4

### **Explanation:**

- Amazon DynamoDB is a fully managed NoSQL database service that provides fast and predictable performance with seamless scalability. Push button scaling means that you can scale the DB at any time without incurring downtime. DynamoDB is schema-less
- All other options are SQL type of databases and therefore have a schema. They also rely on EC2 instances so cannot be scaled dynamically without incurring downtime (you have to change instance types)

### **References:**

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

## **Question 45**

Under the AWS Shared Responsibility Model, who is responsible for what? (choose 2)

1. Customers are responsible for compute infrastructure
2. AWS are responsible for network and firewall configuration
3. Customers are responsible for networking traffic protection
4. AWS are responsible for networking infrastructure
5. Customers are responsible for edge locations



Answer: 3,4

**Explanation:**

- Customers are responsible for networking traffic protection
- AWS are responsible for networking infrastructure
- AWS are responsible for compute infrastructure
- Customers are responsible for network and firewall configuration
- AWS are responsible for edge locations

**References:**

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

## **Question 46**

When using Amazon RDS with Read Replicas, which of the deployment options below are valid? (choose 2)

1. Within an Availability Zone
2. Cross-edge location
3. Cross-subnet
4. Cross-data center
5. Cross-Availability Zone

Answer: 1,5

**Explanation:**

- Read replicas are used for offloading read traffic from the primary RDS database. You can configure read replicas to be within an AZ, across AZs, and across regions
- You cannot specify the subnet or data center to deploy a read replica in

**References:**

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

## **Question 47**

What do you need to create to specify how your AWS Auto Scaling Group scales and shrinks?

1. IAM Policy
2. Scaling Plan
3. Scaling Policy
4. Launch Configuration

Answer: 3

### **Explanation:**

- Scaling policies determine when, if, and how the ASG scales and shrinks (on-demand/dynamic scaling, cyclic/scheduled scaling)
- Scaling Plans define the triggers and when instances should be provisioned/de-provisioned
- A launch configuration is the template used to create new EC2 instances and includes parameters such as instance family, instance type, AMI, key pair and security groups
- An IAM policy is not used to control Auto Scaling

### **References:**

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

## **Question 48**

Your manager has asked you to explain some of the security features available in the AWS cloud. How can you describe the function of Amazon CloudHSM?

1. It is a Public Key Infrastructure (PKI)

2. It provides server-side encryption for S3 objects
3. It can be used to generate, use and manage encryption keys in the cloud
4. it is a firewall for use with web applications

Answer: 3

**Explanation:**

- AWS CloudHSM is a cloud-based hardware security module (HSM) that allows you to easily add secure key storage and high-performance crypto operations to your AWS applications
- CloudHSM has no upfront costs and provides the ability to start and stop HSMs on-demand, allowing you to provision capacity when and where it is needed quickly and cost-effectively
- CloudHSM is a managed service that automates time-consuming administrative tasks, such as hardware provisioning, software patching, high availability, and backups

**References:**

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

## **Question 49**

Which AWS Glacier data access option retrieves data from an archive in 1-5 minutes?

1. Standard
2. Express
3. Accelerated
4. Expedited

Answer: 4

**Explanation:**

- You can use the expedited access to retrieve data within 1-5 minutes
- Standard takes 3-5 hours
- The other options are bogus and do not exist

#### References:

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

## Question 50

With which AWS Storage Gateway Volume Gateway configuration is data stored on-premise and asynchronously backed up to Amazon S3?

1. Cached volume mode
2. File gateway mode
3. Stored volume mode
4. VTL mode

Answer: 3

#### Explanation:

- The volume gateway represents the family of gateways that support block-based volumes, previously referred to as gateway-cached and gateway-stored 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
- A file gateway is not a mode but a different type of AWS Storage Gateway that provides a virtual on-premises file server, which enables you to store and retrieve files as objects in Amazon S3
- Virtual Tape Library is not a mode but a gateway that is preconfigured with a media changer and tape drives

**References:**

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

**Question 51**

Which type of AWS database is ideally suited to analytics using SQL queries?

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

Answer: 2

**Explanation:**

- Amazon Redshift is a fast, fully managed data warehouse that makes it simple and cost-effective to analyze all your data using standard SQL and existing Business Intelligence (BI) tools. RedShift is a SQL based data warehouse used for **analytics** applications
- Amazon DynamoDB is a NoSQL type of database and is not suited to analytics using SQL queries
- Amazon RDS is a transactional DB, not an analytics DB
- Amazon S3 is an object storage solution not a database

**References:**

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

**Question 52**

When using Identity and Access Management (IAM) what is the process of gaining access to a resource?

1. First you authenticate, then you are authorized, and then you gain access
2. First you are authorized, then you authenticate, and then you gain access
3. First you authenticate, then you gain access, and then you are authorized
4. With IAM you do not need to authenticate or be authorized

Answer: 1

**Explanation:**

- The process is that you are first authenticated (the system checks you are who you say you are), then you are authorized (the system determined the resources you are allowed to access), and then you are able to access the resources

**References:**

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

## **Question 53**

Which AWS service makes it easy to coordinate the components of distributed applications as a series of steps in a visual workflow?

1. Amazon SWF
2. AWS Step Functions
3. Amazon SNS
4. Amazon SES

Answer: 2

**Explanation:**

- AWS Step Functions lets you coordinate multiple AWS services into serverless workflows so you can build and update apps

quickly. AWS Step Functions lets you build visual workflows that enable fast translation of business requirements into technical requirements

- Amazon SWF helps developers build, run, and scale background jobs that have parallel or sequential steps. SWF is not a visual workflow tool
- Amazon Simple Notification Service (SNS) is a highly available, durable, secure, fully managed pub/sub messaging service
- Amazon Simple Email Service (Amazon SES) is a cloud-based email sending service designed to help digital marketers and application developers send marketing, notification, and transactional emails

**References:**

- <https://aws.amazon.com/step-functions/>

## **Question 54**

A Solutions Architect is creating the business process workflows associated with an order fulfilment system. Which AWS service can assist with coordinating tasks across distributed application components?

1. Amazon 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://aws.amazon.com/swf/>

## **Question 55**

Which types of servers can be migrated using the AWS Server Migration Service? (choose 2)

1. OpenStack VMs
2. VMware vSphere VMs
3. Oracle VMs
4. Hyper-V VMs
5. Azure Instances

Answer: 2,4

**Explanation:**

- 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 SMS allows you to automate, schedule, and track incremental replications of live server volumes, making it easier for you to coordinate large-scale server migrations. Currently, you can migrate virtual machines



from VMware vSphere and Windows Hyper-V to AWS using AWS Server Migration Service

**References:**

- <https://aws.amazon.com/server-migration-service/>
- <https://aws.amazon.com/server-migration-service/faqs/>

## **Question 56**

Which billing and account management service can be used by businesses to sell applications they have built on the AWS cloud?

1. Amazon Payments
2. Amazon AppPay
3. Amazon DevPay
4. Amazon Billing

Answer: 3

**Explanation:**

- Amazon DevPay is a simple-to-use online billing and account management service that makes it easy for businesses to sell applications that are built in, or run on top of, Amazon Web Services
- None of the other options are valid

**References:**

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

## **Question 57**

Which AWS service is designed to be used for operational analytics?

1. Amazon EMR
2. Amazon Athena
3. Amazon QuickSight
4. Amazon Elasticsearch Service

Answer: 4

**Explanation:**

- For operational analytics such as application monitoring, log analytics and clickstream analytics, Amazon Elasticsearch Service allows you to search, explore, filter, aggregate, and visualize your data in near real-time
- For big data processing using the Spark and Hadoop frameworks, Amazon EMR provides a managed service that makes it easy, fast, and cost-effective to process vast amounts data
- For interactive analysis, Amazon Athena makes it easy to analyze data directly in S3 and Glacier using standard SQL queries
- For dashboards and visualizations, Amazon QuickSight provides you a fast, cloud-powered business analytics service, that that makes it easy to build stunning visualizations and rich dashboards that can be accessed from any browser or mobile device

**References:**

- <https://aws.amazon.com/big-data/datalakes-and-analytics/>

## **Question 58**

You need to connect your company's on-premise network into AWS and would like to establish an AWS managed VPN service. Which of the following configuration items needs to be setup on the Amazon VPC side of the connection?

1. A Virtual Private Gateway
2. A Customer Gateway
3. A Network Address Translation device
4. A Firewall

Answer: 1

**Explanation:**

- A *virtual private gateway* is the VPN concentrator on the Amazon side of the VPN connection. You create a virtual private gateway and attach it to the VPC from which you want to create the VPN connection
- A *customer gateway* is a physical device or software application on your side of the VPN connection
- NAT devices and firewalls are not required for an AWS managed VPN

**References:**

- <https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/aws-networking/>
- [https://docs.aws.amazon.com/vpc/latest/userguide/VPC\\_VPN.html#VPN](https://docs.aws.amazon.com/vpc/latest/userguide/VPC_VPN.html#VPN)

## **Question 59**

Where are Amazon EBS snapshots stored?

1. On an Amazon EBS instance store
2. On an Amazon EFS filesystem
3. Within the EBS block store
4. On Amazon S3

Answer: 4

**Explanation:**

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

**References:**

- Snapshots capture a point-in-time state of an instance. Snapshots are stored on S3

## **Question 60**

Which type of Elastic Load Balancer distributes traffic using the TCP, SSL, HTTP and HTTPS protocol information?

1. Application Load Balancer (ALB)
2. Network Load Balancer (NLB)
3. Classic Load Balancer (CLB)
4. No load balancers operate at the TCP level

Answer: 3

### **Explanation:**

- CLBs process traffic at the TCP, SSL, HTTP and HTTPS levels (layer 4 & 7)
- ALBs process traffic at the HTTP, HTTPS level (layer 7)
- NLBs process traffic at the TCP level (layer 4)

### **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 61**

What locations can be used for storing Amazon CloudWatch log files? (choose 2)

1. Amazon EBS
2. Amazon CloudWatch Logs
3. Amazon Storage Gateway
4. Splunk
5. Amazon CloudTrail

Answer: 2,4

**Explanation:**

- Amazon CloudWatch is a monitoring service for AWS cloud resources and the applications you run on AWS. Used to collect and track metrics, collect and monitor log files, and set alarms
- Options for storing logs include CloudWatch Logs, Amazon S3 by using a custom script, and a centralized logging system such as Splunk

**References:**

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

## **Question 62**

How many snapshots are required in order to restore an Amazon EBS volume?

1. The most recent snapshot only
2. The first and most recent snapshot
3. All snapshots
4. The first snapshot only

Answer: 1

**Explanation:**

- 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. Even though snapshots are saved incrementally, the snapshot deletion process is designed so that you need to retain only the most recent snapshot in order to restore the volume

**References:**

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

## **Question 63**

To which destinations can Amazon S3 NOT send event notifications?  
(choose 2)

1. DynamoDB Table
2. SNS Topics
3. SQS Queue
4. CloudWatch
5. Lambda functions

Answer: 1,4

### **Explanation:**

- The Amazon S3 notification feature enables you to receive notifications when certain events happen in your bucket
- Notifications can be sent to: SNS Topics, SWS Queues, and Lambda functions

### **References:**

- <https://digitalcloud.training/certification-training/aws-solutions-architect-associate/storage/amazon-s3/>
- <https://docs.aws.amazon.com/AmazonS3/latest/dev/NotificationHowTo.html#notification-how-to-event-types-and-destinations>

## **Question 64**

Which type of scaling does AWS Auto Scaling provide?

1. Vertical
2. Linear
3. Horizontal
4. Incremental

Answer: 3

**Explanation:**

- AWS Auto Scaling scales horizontally by adding additional compute instances

**References:**

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

## **Question 65**

Which Amazon S3 storage class has a minimum storage duration charge of 90 days?

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

Answer: 4

**Explanation:**

- Only Amazon Glacier has a minimum storage duration charge of 90 days. Standard-IA and One Zone-IA both have a minimum storage duration charge of 30 days

**References:**

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