Answer Sheet

Q1) What advantages does the AWS cloud provide in relation to cost? (Select TWO.)

○ One-off payments for on-demand resources
Explanation:-"One-off payments for on-demand resources" is incorrect. You do not get the option for one-off payments for on-demand resources. You can for reserved instances which can be paid all upfront.
○ Itemized power costs
Explanation:-"Itemized power costs" is incorrect. You do not get any power costs on your bill
✓ Ability to turn off resources and not pay for them
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).

"Fine-grained billing" is a correct answer.

"Ability to turn off resources and not pay for them" is also a correct answer.

References: https://aws.amazon.com/ec2/pricing/

○ Enterprise licensing discounts
Explanation:-"Enterprise licensing discounts" is incorrect. You do not get enterprise licensing discounts from AWS and you do not pay anything for power as the cost is built in.
✓ Fine-grained billing
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).

"Fine-grained billing" is a correct answer.

"Ability to turn off resources and not pay for them" is also a correct answer.

References: https://aws.amazon.com/ec2/pricing/

Q2) Which of the following represents a value proposition for using the AWS Cloud?

○ Customers can request specialized hardware.
Explanation:-"Customers can request specialized hardware" is incorrect. This is not true; you have no say in what hardware AWS utilize.
○ AWS provides full access to their data centers.
Explanation:-"AWS provides full access to their data centers" is incorrect. This is never the case; you cannot access the AWS data centers.
✓ It is not necessary to enter into long term contracts.
Explanation:-
With AWS you can pay for what you use and there is no requirement to enter into long term contracts. However, there are opportunities to gain large discounts by committing to 1 or 3 years contracts for reserved instances and savings plans.

"It is not necessary to enter into long term contracts" is the correct answer.

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

○ AWS is responsible for securing your applications.
Explanation:-"AWS is responsible for securing your applications" is incorrect. AWS does not secure your applications.

Q3) Which of the following are valid benefits of using the AWS Cloud? (Select TWO.)

○ Outsource all operational risk.
Explanation:-"Outsource all operational risk" is incorrect. You do not outsource all operational risk; you still have to manage risk for the applications you run on AWS.
✓ Ability to go global quickly.
Explanation:-
The ability to provision IT resources quickly and easily and also globally are valid benefits of using the AWS cloud. These are covered in AWS' 6 advantages of cloud which include "Increase speed and agility" and "Go global in minutes".

"Fast provisioning of IT resources" is a correct answer.

"Ability to go global quickly" is also a correct answer.

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

○ Outsource all application development to AWS.
Explanation:-"Outsource all application development to AWS" is incorrect. You must still develop your own applications on the AWS Cloud.
✓ Fast provisioning of IT resources.
Explanation:-
The ability to provision IT resources quickly and easily and also globally are valid benefits of using the AWS cloud. These are covered in AWS' 6 advantages of cloud which include "Increase speed and agility" and "Go global in minutes".

"Fast provisioning of IT resources" is a correct answer.

"Ability to go global quickly" is also a correct answer.

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

○ Total control over data center infrastructure.
Explanation:-"Total control over data center infrastructure" is incorrect. You don't have any control over data center infrastructure in the AWS Cloud.

Q4) A company has many underutilized compute resources on-premises. Which AWS Cloud feature will help resolve this issue?

○ Fault tolerance
Explanation:-"Fault tolerance" is incorrect. This does not help with resolving underutilization.
✓ Elasticity
Explanation:-
Elasticity can resolve the issue of underutilization as you can easily and automatically adjust the resource allocations for your compute resources based on actual utilization. This ensures that you have the right amount of resources and do not pay for more than you need.

"Elasticity" is the correct answer.

References: https://aws.amazon.com/aws-cost-management/aws-cost-optimization/right-sizing/

○ Global deployment
Explanation:-"Global deployment" is incorrect. This does not help with resolving underutilization.
○ High availability
Explanation:-"High availability" is incorrect. This does not help with resolving underutilization.

Q5) Which resource should a new user on AWS use to get help with deploying popular technologies based on AWS best practices, including architecture and deployment instructions?

○ AWS CloudFormation

Explanation:-"AWS CloudFormation" is incorrect. CloudFormation is used to deploy infrastructure from templates, the Partner Solutions use CloudFormation.

- AWS Config

Explanation:-"AWS Config" is incorrect. Config is a service used for compliance relating the configuration of AWS resources.

- AWS Artifact

Explanation:-"AWS Artifact" is incorrect. Artifact provides on-demand access to AWS security and compliance reports.

- ✅ AWS Partner Solutions

Explanation:-
Partner Solutions are built by Amazon Web Services (AWS) solutions architects and partners to help you deploy popular technologies on AWS, based on AWS best practices for security and high availability. These accelerators reduce hundreds of manual procedures into just a few steps, so you can build your production environment quickly and start using it immediately.

Each Quick Start includes AWS CloudFormation templates that automate the deployment and a guide that discusses the architecture and provides step-by-step deployment instructions.

"AWS Partner Solutions" is the correct answer.

References: https://aws.amazon.com/quickstart/

Q6) How can a user block a suspicious IP address from connecting to an Amazon EC2 instance?

- Block the IP on the outbound rule of a security group and network ACL.
- Block the IP on the outbound rule of a security group.
- ✅ Block the IP on the inbound rule of a network ACL.

Explanation:-
With a Network ACL you can block a specific IP address that would be coming inbound into your subnet. This would prevent a specific IP from gaining access if you suspected them of being a bad actor.

The table below shows the key differences between Network ACLs and Security Groups:

"Block the IP on the inbound rule of a network ACL" is the correct answer (as explained above.)

References: https://aws.amazon.com/premiumsupport/knowledge-center/ec2-block-or-allow-ips/

- Block the IP on the inbound rule of a security group and network ACL.

Q7)

A company has a website that delivers static content from an Amazon S3 bucket to users from around the world.

Which AWS service will deliver the content with low latency?

- AWS Global Accelerator

Explanation:-"AWS Global Accelerator" is incorrect. Global Accelerator is used to direct traffic to application endpoints in different Regions using the AWS global network. It does not cache content and would not be used in front of an S3 bucket.

- AWS Elastic Beanstalk

Explanation:-"AWS Elastic Beanstalk" is incorrect. Elastic Beanstalk is a platform as a service offering that is used to run applications on a managed platform.

- AWS Lambda

Explanation:-"AWS Lambda" is incorrect. Lambda is a serverless compute service that runs code in response to triggers.

- ✅ Amazon CloudFront

Explanation:-
Amazon CloudFront is a content delivery network (CDN) and can use an Amazon S3 bucket configured as a static website as an origin for the content is caches globally. CloudFront reduces latency for global users by serving the requested content from a local cache.

"Amazon CloudFront" is the correct answer.

References: https://aws.amazon.com/cloudfront/

Q8) Which of the below are components that can be configured in the VPC section of the AWS management console? (Select TWO.)

- EBS volumes
- Elastic Load Balancer
- ✅ Endpoints

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

"Subnet" is a correct answer.

"Endpoints" is also a correct answer.

References: https://aws.amazon.com/vpc/

- DNS records
- ✅ Subnet

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

"Subnet" is a correct answer.

"Endpoints" is also a correct answer.

References: https://aws.amazon.com/vpc/

Q9)

Remote employees need access to managed Windows virtual desktops and applications over secure networks.

Which AWS services can the company use to meet these requirements? (Select TWO.)

- Amazon Elastic Container Service (Amazon ECS)

Explanation:-"Amazon Elastic Container Service (Amazon ECS)" is incorrect. Amazon ECS is a managed container service which makes it manage your containers in the cloud. Amazon EC2 cannot provide access to persistent topics.

- ✅ AWS Site-to-Site VPN

Explanation:-
Amazon Workspaces is a fully managed desktop virtualization service for Windows and Linux that enables you to access resources from any supported device.

To secure your network you would use the AWS Site-to-Site VPN. AWS Site-to-Site VPN allows you to encrypt traffic across your networks.

CORRECT: "Amazon Workspaces" is the correct answer

"AWS Site-to-Site VPN" is also a correct answer

References: https://aws.amazon.com/workspaces/

https://docs.aws.amazon.com/vpn/latest/s2svpn/VPC_VPN.html

Amazon AppStream 2.0

Explanation:-"Amazon AppStream 2.0" is incorrect. Amazon AppStream is a non-persistent desktop and application service for remotely accessing your work. The non-persistent feature of this service would make the product unsuitable.

✅ Amazon Workspaces

Explanation:-

Amazon Workspaces is a fully managed desktop virtualization service for Windows and Linux that enables you to access resources from any supported device.

To secure your network you would use the AWS Site-to-Site VPN. AWS Site-to-Site VPN allows you to encrypt traffic across your networks.

CORRECT: "Amazon Workspaces" is the correct answer

"AWS Site-to-Site VPN" is also a correct answer

References: https://aws.amazon.com/workspaces/

https://docs.aws.amazon.com/vpn/latest/s2svpn/VPC_VPN.html

Amazon Connect

Explanation:-"Amazon Connect" is incorrect. Amazon Connect is a cloud-based telecommunications service providing managed cloud-based customer contact centers.

Q10)

An IT company requires a private, encrypted channel of communication between its on-premises data center and a VPC in the AWS Cloud.

Which AWS service or feature meets this requirement?

AWS Global Accelerator

Explanation:-"AWS Global Accelerator" is incorrect. AWS Global Accelerator is a networking service that improves the performance of your users' traffic by up to 60% using Amazon Web Services' global network infrastructure. When the internet is congested, AWS Global Accelerator optimizes the path to your application to keep packet loss, jitter, and latency consistently low. It is not used as a tool to communicate between your VPC and on-premises environments.

✅ AWS PrivateLink

Explanation:-

AWS PrivateLink provides private connectivity between VPCs, AWS services, and your on-premises networks, without exposing your traffic to the public internet.

"AWS PrivateLink" is the correct answer (as explained above.)

References: https://aws.amazon.com/privatelink/?

VPC endpoints

Explanation:-"VPC endpoints" is incorrect. A VPC endpoint enables users to privately connect their VPC to supported AWS services and does not connect AWS to an on-premises network.

AWS Site-to-Site VPN

Explanation:-"AWS Site-to-Site VPN" is incorrect, because although traffic can be encrypted between a VPC and on-premises environments, it is over the public interview therefore it is not suitable for the needs of the IT company.

Q11) Which service can be used to improve performance for users around the world?

Amazon Connect

Explanation:-"Amazon Connect" is incorrect. Amazon Connect Amazon Connect is a self-service, cloud-based contact center service that makes it easy for any business to deliver better customer service at lower cost.

✅ Amazon CloudFront

Explanation:-

Amazon CloudFront is a content delivery network (CDN) that caches content at Edge Locations around the world. This gets the content closer to users which improves performance.

"Amazon CloudFront" is the correct answer.

References: https://aws.amazon.com/cloudfront/faqs/

Amazon ElastiCache

Explanation:-"Amazon ElastiCache" is incorrect. Amazon ElastiCache is a caching service for databases. Though it does improve read performance for database queries, it is not a global service that is designed to improve performance for users around the world.

AWS LightSail

Explanation:-"AWS LightSail" is incorrect. AWS LightSail is a compute service that offers a lower cost and easier to use alternative to Amazon EC2.

Q12) What are the primary benefits of using AWS Elastic Load Balancing? (Select TWO.)

✅ Elasticity

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.
"High availability" is a correct answer.
"Elasticity" is also a correct answer.
References: https://aws.amazon.com/elasticloadbalancing/

Automation

Explanation:-INCORRECT: "Automation" is incorrect. Automation is not a primary benefit of ELB.

Caching

Explanation:-INCORRECT: "Caching" is incorrect. Caching is not a benefit of ELB

✅ High availability

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.
"High availability" is a correct answer.
"Elasticity" is also a correct answer.
References: https://aws.amazon.com/elasticloadbalancing/

Regional resilience

Explanation:-INCORRECT: "Regional resilience" is incorrect. An ELB can distribute incoming traffic across your Amazon EC2 instances in a single Availability Zone or multiple Availability Zones, but not across regions (for regional resilience).

Q13) What is the relationship between subnets and availability zones?

You can create one subnet per availability zone

Subnets span across multiple availability zones

✅ You can create one or more subnets within each availability zone

Explanation:-

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

"You can create one or more subnets within each availability zone" is the correct answer.

References: https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/Concepts.RegionsAndAvailabilityZones.html

Subnets contain one or more availability zones

Q14) Which of the following descriptions is incorrect in relation to the design of Availability Zones?

Each AZ is designed as an independent failure zone

Explanation:-INCORRECT: "Each AZ is designed as an independent failure zone" is incorrect as this is true.

AZs are physically separated within a typical metropolitan region and are located in lower risk flood plains

Explanation:-INCORRECT: "AZs are physically separated within a typical metropolitan region and are located in lower risk flood plains" is incorrect as this is true.

Each subnet in a VPC is mapped to all AZs in the region

Explanation:-

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

"Each subnet in a VPC is mapped to all AZs in the region" is the correct answer.

References: https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/using-regions-availability-zones.html

AZ's have direct, low-latency, high throughput and redundant network connections between each other

Explanation:-INCORRECT: "AZ's have direct, low-latency, high throughput and redundant network connections between each other" is incorrect as this is true.

Q15)

A developer needs a way to automatically provision a collection of AWS resources.

Which AWS service is primarily used for deploying infrastructure as code?

Jenkins

Explanation:-INCORRECT: "Jenkins" is incorrect. Jenkins is a Continuous Integration tool but is not an AWS service.

AWS CodeDeploy

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

AWS CloudFormation

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.

"AWS CloudFormation" is the correct answer.

References: https://aws.amazon.com/cloudformation/

AWS Elastic Beanstalk

Explanation:-INCORRECT: "AWS Elastic Beanstalk" is incorrect. Elastic Beanstalk is more focused on deploying applications on EC2 (PaaS).

Q16) An Elastic IP Address can be remapped between EC2 instances across which boundaries?

DB Subnets

Explanation:-INCORRECT: "DB Subnets" is incorrect. DB subnets (groups) are used by the RDS relational database service and are not used for running EC2 instances.

Edge Locations

Explanation:-INCORRECT: "Edge Locations" is incorrect. Edge Locations are used by CloudFront and are not places where you can run EC2 instances.

Regions

Explanation:-INCORRECT: "Regions" is incorrect as you cannot remap across regions.

Availability Zones

Explanation:-

Elastic IP addresses are for use in a specific region only and can therefore only be remapped between instances within that region. You can use Elastic IP addresses to mask the failure of an instance in one Availability Zone by rapidly remapping the address to an instance in another Availability Zone.

"Availability Zones" is the correct answer.

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

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Q17)

A cloud practitioner needs to decrease application latency and increase performance for globally distributed users.

Which services can assist? (Select TWO.)

Amazon CloudFront

Explanation:-

Amazon S3 is an object-based storage system. It can be used to store data such as files and images that need to be served. Optionally, an S3 bucket can be configured as a static website. Amazon CloudFront is a content delivery network (CDN) that caches content at Edge Locations around the world. These two services can work together with an S3 bucket configured as an origin for the CloudFront distribution. Users around the world will then be able to pull the content from the local Edge Location with lower latency and better performance.

"Amazon S3" is a correct answer.

"Amazon CloudFront" is also a correct answer.

References: https://aws.amazon.com/cloudfront/

https://aws.amazon.com/s3/

Amazon S3

Explanation:-

Amazon S3 is an object-based storage system. It can be used to store data such as files and images that need to be served. Optionally, an S3 bucket can be configured as a static website. Amazon CloudFront is a content delivery network (CDN) that caches content at Edge Locations around the world. These two services can work together with an S3 bucket configured as an origin for the CloudFront distribution. Users around the world will then be able to pull the content from the local Edge Location with lower latency and better performance.

"Amazon S3" is a correct answer.

"Amazon CloudFront" is also a correct answer.

References: https://aws.amazon.com/cloudfront/

https://aws.amazon.com/s3/

Amazon ElastiCache

Explanation:-INCORRECT: "Amazon ElastiCache" is incorrect. ElastiCache caches data from a database in-memory. It is unsuitable for these requirements.

Amazon ECS

Explanation:-INCORRECT: "Amazon ECS" is incorrect. The Elastic Container Service (ECS) is used for running Docker containers on AWS. This is not going to help with reducing latency or increasing performance for global users.

Amazon AppStream 2.0

Explanation:-INCORRECT: "Amazon AppStream 2.0" is incorrect. This is an application streaming service for streaming applications to computers. It is unsuitable for these requirements.

Q18) Which service is used introduce fault tolerance into an application architecture?

Amazon DynamoDB
Explanation:-INCORRECT: "Amazon DynamoDB" is incorrect. Amazon DynamoDB is fault tolerant; however, it is not something you add to an architecture to introduce fault tolerance to the application stack.
Amazon CloudFront
Explanation:-INCORRECT: "Amazon CloudFront" is incorrect. Amazon CloudFront is a content delivery network that is used for caching content and serving it to web-based users quickly.
✅ Amazon Elastic Load Balancing
Explanation:-
Amazon Elastic Load Balancing is used to spread load and introduce fault tolerance by distributing connections across multiple identically configured back-end EC2 instances.

"Amazon Elastic Load Balancing" is the correct answer.

References: https://aws.amazon.com/elasticloadbalancing/

Amazon ElastiCache
Explanation:-INCORRECT: "Amazon ElastiCache" is incorrect. Amazon ElastiCache is an in-memory database cache and is used to introduce improved performance rather than fault tolerance.

Q19) How can a company connect from their on-premises network to VPCs in multiple regions using private connections?

✅ AWS Direct Connect Gateway
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 Direct Connect Gateway" is the correct answer.

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

AWS Managed VPN
Explanation:-INCORRECT: "AWS Managed VPN" is incorrect. AWS Managed VPN uses the public Internet and is therefore not a private connection.
Inter-Region VPC Peering
Explanation:-INCORRECT: "Inter-Region VPC Peering" is incorrect. Inter-Region VPC peering does not help you to connect from an on-premise network.
Amazon CloudFront
Explanation:-INCORRECT: "Amazon CloudFront" is incorrect. Amazon CloudFront is a content delivery network used for caching data.

Q20) How can an online education company ensure their video courses play with minimal latency for their users around the world?

Use Amazon S3 Transfer Acceleration to speed up downloads
Explanation:-INCORRECT: "Use Amazon S3 Transfer Acceleration to speed up downloads" is incorrect. Amazon S3 Transfer Acceleration is a feature that is used for accelerating uploads to Amazon S3, not for downloads.
Use Amazon EBS Cross Region Replication to get the content close to the users
Explanation:-INCORRECT: "Use Amazon EBS Cross Region Replication to get the content close to the users" is incorrect. Amazon EBS Cross Region Replication does not exist (S3 Cross Region Replication does). You can copy EBS volumes across regions manually (or programmatically), however EBS is not a good way to get your content closer to your users as you would need to mount the volume to an EC2 instance (additional cost) and would also need to find a way to keep your files in sync.
Use Amazon Aurora Global Database
Explanation:-INCORRECT: "Use Amazon Aurora Global Database" is incorrect. Amazon Aurora Global Database is designed for globally distributed applications, allowing a single Amazon Aurora database to span multiple AWS regions. This is a way to have an SQL database across regions, which is not a good use case for hosting media files.
✅ Use Amazon CloudFront to get the content closer to users
Explanation:-
Amazon CloudFront is a content delivery network (CDN) that enables you to cache content in Edge Locations that are located around the world. This brings your media closer to your end users which reduces latency and improves the user experience.

"Use Amazon CloudFront to get the content closer to users" is the correct answer.

References: https://aws.amazon.com/cloudfront/

Q21) When designing a VPC, what is the purpose of an Internet Gateway?

Provides Internet access for EC2 instances in private subnets
Explanation:-INCORRECT: "Provides Internet access for EC2 instances in private subnets" is incorrect. You cannot connect instances in a private subnet to the Internet using an Internet Gateway, you need a NAT Gateway or NAT Instance for this purpose.
It's used for making VPN connections to a VPC
Explanation:-INCORRECT: "It's used for making VPN connections to a VPC" is incorrect. You cannot use the Internet Gateway for making VPN connections to a VPC, you need a Virtual Private Gateway for this purpose.
It's a bastion host for inbound management connections
Explanation:-INCORRECT: "It's a bastion host for inbound management connections" is incorrect. You cannot use an Internet Gateway as a bastion host, deploy an EC2 instance in a public subnet for this purpose.
✅ Enables Internet communications for instances in public subnets
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.

"Enables Internet communications for instances in public subnets" is the correct answer.

References: https://docs.aws.amazon.com/vpc/latest/userguide/VPC_Internet_Gateway.html

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Q22) What is an Edge location?

A virtual private gateway for VPN
A public endpoint for Amazon S3
A VPC peering connection endpoint
✅ A content delivery network (CDN) endpoint for CloudFront
Explanation:-Edge locations are Content Delivery Network (CDN) endpoints for CloudFront. There are many more edge locations than regions.
"A content delivery network (CDN) endpoint for CloudFront" is the correct answer.

Q23) How can you configure Amazon Route 53 to monitor the health and performance of your application?

Using CloudWatch
Using DNS lookups
✅ Using Route 53 health checks
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.

"Using Route 53 health checks" is the correct answer.

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

- Using the Route 53 API

Q24) Which AWS security service provides a firewall at the subnet level within a VPC?

- IAM Policy

Explanation:-INCORRECT: "IAM Policy" is incorrect. An IAM Policy is used to assign permissions to users and roles.

- ✅ Network Access Control List

Explanation:-
A Network ACL is a firewall that is associated with a subnet within your VPC. It is used to filter the network traffic that enters and exits the subnet.

"Network Access Control List" is the correct answer.

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

- Bucket Policy

Explanation:-INCORRECT: "Bucket Policy" is incorrect. A Bucket Policy is used with Amazon S3 buckets to control access.

- Security Group

Explanation:-INCORRECT: "Security Group" is incorrect. A Security Group is a firewall that is associated with an EC2 instances (not the subnet). Security Groups control the traffic the inbound and outbound network traffic from/to the instance.

Q25)

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?

- A Network Address Translation device

Explanation:-"A Network Address Translation device" is incorrect. NAT devices and firewalls are not required for an AWS managed VPN.

- ✅ A Virtual Private Gateway

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 Virtual Private Gateway" is the correct answer.

References: https://docs.aws.amazon.com/vpc/latest/userguide/VPC_VPN.html#VPN

- A Firewall

Explanation:-"A Firewall" is incorrect. A firewall is not required for a VPN connection.

- A Customer Gateway

Explanation:-"A Customer Gateway" is incorrect. A customer gateway is a physical device or software application on your side of the VPN connection.

Q26) What is the most efficient way to establish network connectivity from on-premises to multiple VPCs in different AWS Regions?

- Use AWS Direct Connect

Explanation:-"Use AWS Direct Connect" is incorrect as this only connects you to a single Amazon VPC, not multiple VPCs in different Regions.

- Use AWS VPN

Explanation:-"Use AWS VPN" is incorrect as this is a point-to-point connection between an on-premises location and a single Amazon VPC.

- Use AWS Client VPN

Explanation:-"Use AWS Client VPN" is incorrect as this service allows end users to connect to AWS using a VPN client.

- ✅ Use an AWS Transit Gateway

Explanation:-
AWS Transit Gateway is a service that enables customers to connect their Amazon Virtual Private Clouds (VPCs) and their on-premises networks to a single gateway.

With AWS Transit Gateway, you only have to create and manage a single connection from the central gateway into each Amazon VPC, on-premises data center or remote office across your network. Transit Gateway acts as a hub that controls how traffic is routed among all the connected networks which act like spokes.

"Use an AWS Transit Gateway" is the correct answer. Please refer to explanation provided above.

References: https://aws.amazon.com/transit-gateway/

Q27)

A company is deploying a new web application in a single AWS Region that will be used by users globally.

Which AWS services will assist with lowering latency and improving transfer speeds for the global users? (Select TWO.)

- AWS Direct Connect

Explanation:-"AWS Direct Connect" is incorrect. This service provides private connections from data centers to AWS. It is not useful for distributed users as they will not be able to take advantage of it.

- AWS Snowcone

Explanation:-"AWS Snowcone" is incorrect. Snowcone is used as an edge device for transferring data.

- ✅ AWS Global Accelerator

Explanation:-
Amazon CloudFront is a content delivery network (CDN) that caches content around the world for lower latency access. AWS Global Accelerator enables access to your application by leveraging the same Edge Locations as CloudFront and routing connections across the AWS global network.

Both of these services assist with lowering latency and improving transfer speeds for users who are distributed around the world.

"AWS Global Accelerator" is a correct answer.

"Amazon CloudFront" is also a correct answer.

References: https://aws.amazon.com/global-accelerator/

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

- AWS Transit Gateway

Explanation:-"AWS Transit Gateway" is incorrect. This service is used for optimizing the network topology of interconnected VPCs and on-premises networks.

- ✅ Amazon CloudFront

Explanation:-
Amazon CloudFront is a content delivery network (CDN) that caches content around the world for lower latency access. AWS Global Accelerator enables access to your application by leveraging the same Edge Locations as CloudFront and routing connections across the AWS global network.

Both of these services assist with lowering latency and improving transfer speeds for users who are distributed around the world.

"AWS Global Accelerator" is a correct answer.

"Amazon CloudFront" is also a correct answer.

References: https://aws.amazon.com/global-accelerator/

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

Q28) Which of the following deployments involves the reliability pillar of the AWS Well-Architected Framework?

Attach a WebACL to a CloudFront distribution
Explanation:-"Attach a WebACL to a CloudFront distribution" is incorrect. This would be an example of using the security pillar.
Amazon RDS Multi-AZ deployment
Explanation:-
An Amazon Relational Database Service (RDS) deployment across multiple availability zones is a good example of using the reliability pillar of the AWS Well-Architected Framework. The specific design principle being followed here is “Automatically recover from failure”.

"Amazon RDS Multi-AZ deployment" is the correct answer.

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

Use CloudFormation to deploy infrastructure
Explanation:-"Use CloudFormation to deploy infrastructure" is incorrect. This would be an example of using the operational excellence pillar.
Amazon EBS provisioned IOPS volume
Explanation:-"Amazon EBS provisioned IOPS volume" is incorrect. This would be an example of performance efficiency.

Q29)

A company is designing a new a service that must align with the operational excellence pillar of the AWS Well-Architected Framework.

Which design principles should the company follow? (Select TWO.)

Anticipate failure.
Explanation:-AWS Well-Architected helps cloud architects build secure, high-performing, resilient, and efficient infrastructure for their applications and workloads. There are 5 pillars and under the operational excellence pillar the following best practices are recommended:

• Perform operations as code

• Make frequent, small, reversible changes

• Refine operations procedures frequently

• Anticipate failure

• Learn from all operational failures

"Anticipate failure" is a correct answer.

"Perform operations as code" is also a correct answer.

References: https://aws.amazon.com/architecture/well-architected/
Perform operations as code.
Explanation:-AWS Well-Architected helps cloud architects build secure, high-performing, resilient, and efficient infrastructure for their applications and workloads. There are 5 pillars and under the operational excellence pillar the following best practices are recommended:

• Perform operations as code

• Make frequent, small, reversible changes

• Refine operations procedures frequently

• Anticipate failure

• Learn from all operational failures

"Anticipate failure" is a correct answer.

"Perform operations as code" is also a correct answer.

References: https://aws.amazon.com/architecture/well-architected/
Perform manual operations.
Explanation:-"Perform manual operations" is incorrect. This is not an operational best practice.
Make large-scale changes.
Explanation:-"Make large-scale changes" is incorrect. This is not an operational best practice.
Create static operational procedures.
Explanation:-"Create static operational procedures" is incorrect. This is not an operational best practice.

Q30) Which of the following statements best describes the concept of agility in relation to cloud computing on AWS? (Select TWO.)

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

"The ability to experiment quickly" is a correct answer.

"The speed at which AWS resources can be created" is also a correct answer.

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

The elimination of wasted capacity.
Explanation:-"The elimination of wasted capacity" is incorrect. This is also known as right-sizing and it is a cost benefit of running in the cloud. It is not a statement that describes agility.
The ability to automatically scale capacity.
Explanation:-"The ability to automatically scale capacity" is incorrect. Auto scaling ensures you have the right amount of capacity available.
The speed at which AWS rolls out new features.
Explanation:-"The speed at which AWS rolls out new features" is incorrect. This is not a statement that describes agility.
The ability to experiment quickly.
Explanation:-
In a cloud computing environment, new IT resources are only a click away, which means that you reduce the time to make those resources available to your developers from weeks to just minutes. This results in a dramatic increase in agility for the organization, since the cost and time it takes to experiment and develop is significantly lower.

"The ability to experiment quickly" is a correct answer.

"The speed at which AWS resources can be created" is also a correct answer.

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

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Q31) How does the AWS cloud increase the speed and agility of execution for customers? (Select TWO.)

✅ Scalable compute capacity

Explanation:-

The ability to quickly provision resources on AWS is a good example of speed and agility. On AWS the resources are readily available and can be deployed extremely quickly. Scalable compute capacity is another example as it gives you the agility to easily reconfigure your resources with more or less capacity as is required.

"Fast provisioning of resources" is a correct answer.

"Scalable compute capacity" is also a correct answer.

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

⚪ Secured data centers

Explanation:-"Secured data centers" is incorrect. Secured data centers are not an example of speed and agility.

⚪ Lower cost of deployment

Explanation:-"Lower cost of deployment" is incorrect. This is not an example of speed and agility.

⚪ Private connections to data centers

Explanation:-"Private connections to data centers" is incorrect. A private connection to a data center is not an example of speed and agility.

✅ Fast provisioning of resources

Explanation:-

The ability to quickly provision resources on AWS is a good example of speed and agility. On AWS the resources are readily available and can be deployed extremely quickly. Scalable compute capacity is another example as it gives you the agility to easily reconfigure your resources with more or less capacity as is required.

"Fast provisioning of resources" is a correct answer.

"Scalable compute capacity" is also a correct answer.

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

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Q32) When running applications in the AWS Cloud which common tasks can AWS manage on behalf of their customers? (Select TWO.)

⚪ Application security testing

Explanation:-"Application security testing" is incorrect. AWS does not perform any security testing of your applications.

✅ Taking a backup of a database

Explanation:-

With AWS managed services you can reduce your time spent performing common IT tasks. With services such as Amazon RDS, AWS will patch the database host operating system and database software and perform patch management activities.

"Patching database software" is a correct answer.

"Taking a backup of a database" is also a correct answer.

References: https://aws.amazon.com/rds/

⚪ Application source code auditing

Explanation:-"Application source code auditing" is incorrect. AWS does not audit your source code. You can use Amazon CodeGuru for recommendations for improvement though.

✅ Patching database software

Explanation:-

With AWS managed services you can reduce your time spent performing common IT tasks. With services such as Amazon RDS, AWS will patch the database host operating system and database software and perform patch management activities.

"Patching database software" is a correct answer.

"Taking a backup of a database" is also a correct answer.

References: https://aws.amazon.com/rds/

⚪ Creating a database schema

Explanation:-"Creating a database schema" is incorrect. AWS does not create your schema; this is something that's in the customer's control.

Q33) How can a systems administrator specify a script to be run on an EC2 instance during launch?

⚪ AWS Config

Explanation:-"AWS Config" is incorrect as this service stores configuration information relating to AWS services.

✅ User Data

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.

"User Data" is the correct answer.

References: https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/user-data.html

⚪ Metadata

Explanation:-"Metadata" is incorrect as metadata retrieves information about the instance.

⚪ Run Command

Explanation:-"Run Command" is incorrect as this operates separately to the launch process.

Q34) Which of the following are examples of horizontal scaling? (Select TWO.)

⚪ Scalability is limited by maximum instance size

Explanation:-"Scalability is limited by maximum instance size" is incorrect as with horizontal scaling you add more instances.

✅ Add more instances as demand increases

Explanation:-

With horizontal scaling you add more instances to a fleet of instances to service demand as it increases. This can be achieved automatically by using AWS Auto Scaling to add instances in response to CloudWatch performance metrics.

With vertical scaling you are adding CPU, RAM or storage to an existing instance. This may involve modifying the instance type which typically requires a restart. With vertical scaling on AWS scalability is limited by the maximum instance size.

"Add more instances as demand increases" is a correct answer.

"Automatic scaling using services such as AWS Auto Scaling" is also a correct answer.

References: https://aws.amazon.com/architecture/

⚪ Requires a restart to scale up or down

Explanation:-"Requires a restart to scale up or down" is incorrect as horizontal scaling does not require a restart of existing instances/applications.

⚪ Add more CPU/RAM to existing instances as demand increases

Explanation:-"Add more CPU/RAM to existing instances as demand increases" is incorrect as this is an example of vertical scaling.

✅ Automatic scaling using services such as AWS Auto Scaling

Explanation:-

With horizontal scaling you add more instances to a fleet of instances to service demand as it increases. This can be achieved automatically by using AWS Auto Scaling to add instances in response to CloudWatch performance metrics.

With vertical scaling you are adding CPU, RAM or storage to an existing instance. This may involve modifying the instance type which typically requires a restart. With vertical scaling on AWS scalability is limited by the maximum instance size.

"Add more instances as demand increases" is a correct answer.

"Automatic scaling using services such as AWS Auto Scaling" is also a correct answer.

References: https://aws.amazon.com/architecture/

Q35) AWS are able to continually reduce their pricing due to:

- Pay-as-you go pricing.

Explanation:-"pay-as-you go pricing" is incorrect. This is a benefit to the customer but is not the reason the actual unit prices are continually being reduce.

- Elastic compute services.

Explanation:-"elastic compute services" is incorrect. Elasticity is useful for scaling your resources and aligning costs with demand but is not why AWS prices are being lowered.

- Compute savings plans.

Explanation:-"compute savings plans" is incorrect. This is another feature you can take advantage of for bigger discounts but is not the reason for prices being lowered.

- ✅ Economies of scale.

Explanation:-
By using cloud computing, you can achieve a lower variable cost than you can get on your own. Because usage from hundreds of thousands of customers is aggregated in the cloud, providers such as AWS can achieve higher economies of scale, which translates into lower pay as-you-go prices.

"economies of scale" is the correct answer.

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

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Q36)

A user deploys an Amazon Aurora database instance in multiple Availability Zones.

This strategy involves which pillar of the AWS Well-Architected Framework?

- ✅ Reliability

Explanation:-
The reliability pillar includes the ability of a system to recover from infrastructure or service disruptions, dynamically acquire computing resources to meet demand, and mitigate disruptions such as misconfigurations or transient network issues.

There are five design principles for reliability in the cloud:

• Test recovery procedures

• Automatically recover from failure

• Scale horizontally to increase aggregate system availability

• Stop guessing capacity

• Manage change in automation

The example given in the question is related to “Automatically recover from failure”.

"Reliability" is the correct answer.

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

- Cost optimization
- Performance ef?ciency
- Security

Q37) Which type of scaling does Amazon EC2 Auto Scaling provide?

- ✅ Horizontal

Explanation:-
Amazon EC2 Auto Scaling scales horizontally by adding launching and terminating EC2 instances based on actual demand for your application.

"Horizontal" is the correct answer.

References: https://aws.amazon.com/ec2/autoscaling/

- Incremental
- Vertical
- Linear

Q38)

A startup eCommerce company needs to quickly deliver new website features in an iterative manner, minimizing the time to market.

Which AWS Cloud feature allows this?

- Reliability

Explanation:-"Reliability" is incorrect as this does not assist with bringing features to market faster.

- High availability

Explanation:-"High availability" is incorrect as this is associated with increased resilience, not agility.

- Elasticity

Explanation:-"Elasticity" is incorrect as this associated with the ability to adjust to demand and reduce the need to guess capacity requirements.

- ✅ Agility

Explanation:-
In a cloud computing environment, new IT resources are only a click away, which means that you reduce the time to make those resources available to your developers from weeks to just minutes.

This results in a dramatic increase in agility for the organization, since the cost and time it takes to experiment and develop is significantly lower.

"Agility" is the correct answer.

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

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Q39) What is an example of scaling vertically?

- AWS Auto Scaling adding more EC2 instances
- Adding read replicas to an Amazon RDS database
- AWS Lambda adding concurrently executing functions
- ✅ Increasing the instance size with Amazon RDS

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.

"Increasing the instance size with Amazon RDS" is the correct answer.

References: https://aws.amazon.com/blogs/database/scaling-your-amazon-rds-instance-vertically-and-horizontally/

Q40) Which AWS Cloud design principles can help increase reliability? (Select TWO.)

✅ Testing recovery procedures

Explanation:-
Recovery procedures should always be tested ahead of any outage of disaster recovery situation. This is the only way to be sure your recovery procedures are effective.

When designing systems it is also a good practice to implement automatic recovery when possible. This reduces or eliminates the operational burden and potential downtime associated with a failure of a system or application component.

CORRECT: "Testing recovery procedures" is the correct answer.

"Automatically recovering from failure" is the correct answer.

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

⚪ Measuring overall efficiency

Explanation:-"Measuring overall efficiency" is incorrect. Efficiency has more of a bearing on cost management than reliability.

⚪ Adopting a consumption model

Explanation:-"Adopting a consumption model" is incorrect. A consumption model has benefits more aligned with cost and agility than reliability.

✅ Automatically recovering from failure

Explanation:-
Recovery procedures should always be tested ahead of any outage of disaster recovery situation. This is the only way to be sure your recovery procedures are effective.

When designing systems it is also a good practice to implement automatic recovery when possible. This reduces or eliminates the operational burden and potential downtime associated with a failure of a system or application component.

CORRECT: "Testing recovery procedures" is the correct answer.

"Automatically recovering from failure" is the correct answer.

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

⚪ Using monolithic architecture

Explanation:-"Using monolithic architecture" is incorrect. A monolithic architecture means you have multiple components of an application running on a single system. This results in a bigger issue if that system fails. A distributed architecture is preferred.

Q41) Which of the following are pillars from the six pillars of the AWS Well-Architected Framework? (Select TWO.)

⚪ Confidentiality

✅ Operational excellence

Explanation:-
The six pillars of the AWS Well-Architected Framework are operation excellence, security, reliability, performance efficiency, cost optimization and sustainability.

"Operational excellence" is a correct answer.

"Sustainability" is also a correct answer.

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

⚪ Economics

✅ Sustainability

Explanation:-
The six pillars of the AWS Well-Architected Framework are operation excellence, security, reliability, performance efficiency, cost optimization and sustainability.

"Operational excellence" is a correct answer.

"Sustainability" is also a correct answer.

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

⚪ Resilience

Q42) According to the AWS Well-Architected Framework, what change management steps should be taken to achieve reliability in the AWS Cloud? (Select TWO.)

⚪ Use Amazon GuardDuty to record API activity to an S3 bucket

Explanation:-"Use Amazon GuardDuty to record API activity to an S3 bucket" is incorrect. GuardDuty does not record API activity to an S3 bucket.

✅ Use AWS Config to generate an inventory of AWS resources

Explanation:-
AWS Config can be used to track the configuration state of your resources and how the state has changed over time. With CloudTrail you can audit who made what API calls on what resources at what time. This can help with identifying changes that cause reliability issues.

"Use AWS Config to generate an inventory of AWS resources" is the correct answer.

"Use AWS CloudTrail to record AWS API calls into an auditable log file" is the correct answer.

References: https://d1.awsstatic.com/whitepapers/architecture/AWS-Reliability-Pillar.pdf

✅ Use AWS CloudTrail to record AWS API calls into an auditable log file

Explanation:-
AWS Config can be used to track the configuration state of your resources and how the state has changed over time. With CloudTrail you can audit who made what API calls on what resources at what time. This can help with identifying changes that cause reliability issues.

"Use AWS Config to generate an inventory of AWS resources" is the correct answer.

"Use AWS CloudTrail to record AWS API calls into an auditable log file" is the correct answer.

References: https://d1.awsstatic.com/whitepapers/architecture/AWS-Reliability-Pillar.pdf

⚪ Use service limits to prevent users from creating or making changes to AWS resources

Explanation:-"Use service limits to prevent users from creating or making changes to AWS resources" is incorrect. Service limits result in a maximum limit for launching resources, but you can still make changes to existing resources (so long as you don't exceed the limit).

⚪ Use AWS Certificate Manager to create a catalog of approved services

Explanation:-"Use AWS Certificate Manager to create a catalog of approved services" is incorrect. Certificate manager is used for issuing and managing SSL/TLS certificates, it does not maintain a catalog of approved services.

Q43) With which service can a developer upload code using a ZIP or WAR file and have the service handle the end-to-end deployment of the resources?

⚪ Amazon ECS

Explanation:-INCORRECT: "Amazon ECS" is incorrect. Amazon Elastic Container Service is a managed service for running Docker containers.

✅ AWS Elastic Beanstalk

Explanation:-
AWS Elastic Beanstalk can be used to quickly deploy and manage applications in the AWS Cloud. Developers upload applications and Elastic Beanstalk handles the deployment details of capacity provisioning, load balancing, auto-scaling, and application health monitoring.

You can upload code directly using a ZIP or WAR file. You can also use a Git archive.

"AWS Elastic Beanstalk" is the correct answer.

References: https://docs.aws.amazon.com/elasticbeanstalk/latest/dg/applications-sourcebundle.html

AWS CodeDeploy
Explanation:-INCORRECT: "AWS CodeDeploy" is incorrect. AWS CodeDeploy is a fully managed deployment service that automates software deployments to a variety of compute services such as Amazon EC2, AWS Lambda, and on-premises servers.
AWS CodeCommit
Explanation:-INCORRECT: "AWS CodeCommit" is incorrect. AWS CodeCommit is a fully-managed source control service that hosts secure Git-based repositories. It does not actually automate the build of the code or infrastructure on which it runs.

Q44) Which service allows an organization to bring their own licensing on host hardware that is physically isolated from other AWS accounts?

EC2 Spot Instances
Explanation:-INCORRECT: "EC2 Spot Instances" is incorrect. Spot instances allow you to bid in the marketplace for EC2 instances to reduce cost, they do not allow BYOL.
EC2 Reserved Instances
Explanation:-INCORRECT: "EC2 Reserved Instances" is incorrect. Reserved instances allow you to reduce on-demand price by up to 70% by committing to a 1- or 3-year term.
EC2 Dedicated Instances
Explanation:-INCORRECT: "EC2 Dedicated Instances" is incorrect. Dedicated Instances are Amazon EC2 instances that run in a VPC on hardware that's dedicated to a single customer. Bring your own licensing (BYOL) is not supported for dedicated instances.
EC2 Dedicated Hosts
Explanation:-
An Amazon EC2 Dedicated Host is a physical server with EC2 instance capacity fully dedicated to your use. Dedicated Hosts allow you to use your existing per-socket, per-core, or per-VM software licenses, including Windows Server, Microsoft SQL Server, SUSE, Linux Enterprise Server, and so on.

"EC2 Dedicated Hosts" is the correct answer.

References: https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/dedicated-hosts-overview.html

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Q45) What are two benefits of using AWS Lambda? (Select TWO.)

Integrated snapshots
Explanation:-INCORRECT: "Integrated snapshots" is incorrect. You do not have integrated snapshots (or any persistent storage) with Lambda.
Continuous scaling (scale out)
Explanation:-
With AWS Lambda you don't have any servers to manage (serverless). Lambda functions scale out rather than up running multiple invocations of the function in parallel.

"No servers to manage" is a correct answer.

"Continuous scaling (scale out)" is also a correct answer.

References: https://aws.amazon.com/lambda/

No servers to manage
Explanation:-
With AWS Lambda you don't have any servers to manage (serverless). Lambda functions scale out rather than up running multiple invocations of the function in parallel.

"No servers to manage" is a correct answer.

"Continuous scaling (scale out)" is also a correct answer.

References: https://aws.amazon.com/lambda/

Open source software
Explanation:-INCORRECT: "Open source software" is incorrect. Lambda is AWS proprietary not open source.
Flexible operating system choices
Explanation:-INCORRECT: "Flexible operating system choices" is incorrect. You do not manage the operating system on which the functions run so have no choice of software.

Q46) What is the name of the AWS managed Docker registry service used by the Amazon Elastic Container Service (ECS)?

ECS Container Registry
Elastic Container Registry
Explanation:-
Amazon Elastic Container Registry (ECR) is a fully-managed Docker container registry that makes it easy for developers to store, manage, and deploy Docker container images.

Amazon ECR is integrated with Amazon Elastic Container Service (ECS). Amazon ECR eliminates the need to operate your own container repositories or worry about scaling the underlying infrastructure.

"Elastic Container Registry" is the correct answer.

References: https://aws.amazon.com/ecr/

Docker Container Registry
Docker Image Repository

Q47) Which AWS services form the app-facing services of the AWS serverless infrastructure? (Select TWO.)

Amazon API Gateway
Explanation:-
AWS Lambda and Amazon API Gateway are both app-facing components of the AWS Serverless infrastructure
AWS Step Functions is an orchestration service

"AWS Lambda" is a correct answer.

"Amazon API Gateway" is also a correct answer.

References: https://aws.amazon.com/serverless/

Amazon EFS
Explanation:-INCORRECT: "Amazon EFS" is incorrect. EFS is a filesystem. Typically, EFS is mounted by Amazon EC2 instances.
AWS Lambda
Explanation:-
AWS Lambda and Amazon API Gateway are both app-facing components of the AWS Serverless infrastructure
AWS Step Functions is an orchestration service

"AWS Lambda" is a correct answer.

"Amazon API Gateway" is also a correct answer.

References: https://aws.amazon.com/serverless/

AWS Step Functions
Explanation:-INCORRECT: "AWS Step Functions" is incorrect. This is a serverless orchestration service.
Amazon DynamoDB
Explanation:-INCORRECT: "Amazon DynamoDB" is incorrect. Amazon DynamoDB is a serverless database service. Databases are backend, not app-facing.

Q48) Which AWS technology can be referred to as a "virtual hard disk in the cloud"?

Amazon ENI
Explanation:-"Amazon ENI" is incorrect. An Amazon Elastic Network Interface is a networking construct, not a storage construct.
Amazon EFS Filesystem
Explanation:-"Amazon EFS Filesystem" is incorrect. An Amazon EFS filesystem is a file-level storage system that is accessed using the NFS protocol. Filesystems are mounted at the file, rather than the block level and are therefore not similar to a virtual hard disk.
Amazon S3 Bucket
Explanation:-"Amazon S3 Bucket" is incorrect. Amazon S3 is an object-level storage service and is not mounted or attached. You use a REST API over HTTPS to access objects in an object store.
Amazon EBS volume
Explanation:-
An Amazon Elastic Block Store (EBS) volume is often described as a "virtual hard disk in the cloud". EBS volumes are block-level storage volumes that are attached to EC2 instances much as you would attach a virtual hard disk to a virtual machine in a virtual infrastructure.

"Amazon EBS volume" is the correct answer.

References: https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/ebs-volumes.html

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Q49) Which of the following are advantages of the AWS Cloud? (Select TWO.)

High economies of scale.
Explanation:-
Economies of scales refers to the fact that because AWS has a global customer base, they can afford to sell much cheaper to any one customer. This is a benefit of being on the cloud and the customer number keeps increasing, and the price keeps going down as a result.

Also as AWS have Regions placed all over the globe, there is a large degree of choice you have in where your applications are launched. In a traditional IT environment this would have been a big problem, and it would have been a logistical nightmare launching an application across multiple Regions.

"High economies of scale" is the correct answer.

"Launch globally in minutes" is also a correct answer.

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

Launch globally in minutes.
Explanation:-
Economies of scales refers to the fact that because AWS has a global customer base, they can afford to sell much cheaper to any one customer. This is a benefit of being on the cloud and the customer number keeps increasing, and the price keeps going down as a result.

Also as AWS have Regions placed all over the globe, there is a large degree of choice you have in where your applications are launched. In a traditional IT environment this would have been a big problem, and it would have been a logistical nightmare launching an application across multiple Regions.

"High economies of scale" is the correct answer.

"Launch globally in minutes" is also a correct answer.

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

Trade variable expenses for capital expenses.
Explanation:-"Trade variable expenses for capital expenses" is incorrect as this is the opposite of what you gain from the cloud. You trade capital expenses for variable expenses.
Focus on managing hardware infrastructure.
Explanation:-"Focus on managing hardware infrastructure" is incorrect. You do not have to manage hardware when you are using the cloud.
Overprovision to ensure capacity.
Explanation:-"Overprovision to ensure capacity" is incorrect. Overprovisioning is not a good thing, and the advantage of the cloud is that you do not have to worry about physical hardware.

Q50) Which statement is true in relation to data stored within an AWS Region?

Data is not replicated outside of a region unless you configure it
Explanation:-
Data stored within an AWS region is not replicated outside of that region automatically. It is up to customers of AWS to determine whether they want to replicate their data to other regions. You must always consider compliance and network latency when making this decision.

"Data is not replicated outside of a region unless you configure it" is the correct answer.

References: https://d1.awsstatic.com/whitepapers/Security/AWS_Security_Best_Practices.pdf

Data is always replicated to another region
Explanation:-"Data is always replicated to another region" is incorrect. Data is never replicated outside of a region unless you configure it.
Data is always automatically replicated to at least one other availability zone
Explanation:-"Data is always automatically replicated to at least one other availability zone" is incorrect. Data is not automatically replicated to at least one availability zone – this is specific to each service and you must check how your data is stored and whether the availability and durability is acceptable.
Data is automatically archived after 90 days
Explanation:-"Data is automatically archived after 90 days" is incorrect. Data is never automatically archived. You must configure data to be archived.

Q51) Which AWS services are delivered globally rather than regionally? (Select TWO.)

Amazon CloudFront
Explanation:-
Amazon CloudFront is a content delivery network (CDN) service that helps you distribute your static and dynamic content quickly and reliably with high speed globally.

Amazon Route 53 is a highly available and scalable Domain Name System (DNS) web service which is also deployed globally.

"Amazon CloudFront" is the correct answer (as explained above.)

"Amazon Route 53" is also a correct answer (as explained above.)

References: https://aws.amazon.com/cloudfront/

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

Amazon RDS
Explanation:-"Amazon RDS" is incorrect. You also choose to launch RDS instances within an Availability Zone, not globally.
Amazon Route 53
Explanation:-
Amazon CloudFront is a content delivery network (CDN) service that helps you distribute your static and dynamic content quickly and reliably with high speed globally.

Amazon Route 53 is a highly available and scalable Domain Name System (DNS) web service which is also deployed globally.

"Amazon CloudFront" is the correct answer (as explained above.)

"Amazon Route 53" is also a correct answer (as explained above.)

References: https://aws.amazon.com/cloudfront/

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

Amazon VPC

Explanation:-"Amazon VPC" is incorrect. A VPC is a regional construct which spans all the Availability Zones within a Region.

- Amazon EC2

Explanation:-"Amazon EC2" is incorrect. You launch EC2 instances within an Availability Zone, not globally.

Q52) An architecture's ability to withstand failures with minimal downtime demonstrates which AWS Cloud benefit?

- Scalability

Explanation:-"Scalability" is incorrect. Scalability is not related to downtime and reacting to interruptions of service directly. Scalability means how quickly our applications scales up and down under typical usage, not failure.

- ✅ High availability

Explanation:-
A high availability computing infrastructure continues to function even when some of its components fail. Mission-critical systems cannot tolerate interruptions in service, and any downtime can result in damage or financial losses.

"High Availability" is the correct answer.

References: https://docs.aws.amazon.com/whitepapers/latest/real-time-communication-on-aws/high-availability-and-scalability-on-aws.html

- Elasticity

Explanation:-"Elasticity" is incorrect. Elasticity is the ability to acquire resources as you need them and release resources when you no longer need them, and not related to interruption of service.

- Agility

Explanation:-"Agility" is incorrect, as agility refers to the time to launch applications and services being massively reduced. This is not related to withstanding failure.

Q53) Which of the following is an advantage of AWS Cloud computing?

- Trade security for elasticity.

Explanation:-"Trade security for elasticity" is incorrect. Security is job zero, and you should never choose elasticity over security.

- Trade elasticity for performance.

Explanation:-"Trade elasticity for performance" is incorrect. You do not need to trade any of the advantages for any other advantages, elasticity and performance efficiency are both advantages.

- Trade operational excellence for agility.

Explanation:-"Trade operational excellence for agility" is incorrect. You do not need to trade any of the advantages for any other advantages, operational excellence and elasticity are both advantages.

- ✅ Trade fixed expenses for variable expenses.

Explanation:-
Trading capital expenditure for operational expenditure is an advantage of the cloud. When you are using the cloud, you do not have to worry about any upfront costs. The billing model is different in that you pay monthly instead of upfront.

"Trade fixed expenses for variable expenses" is the correct answer.

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

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Q54)

It is important for users to have access to as many resources as they need. Also, the user needs the ability to scale up and down quickly.

These capabilities are described by which AWS Cloud benefit?

- Pay-as-you-go pricing

Explanation:-"Pay-as-you-go pricing" is incorrect as this refers to the CAPEX vs OPEX model and does not have anything to do with scalability.

- Reliability

Explanation:-"Reliability" is incorrect. Reliability is the ability of a workload to perform its intended function correctly and consistently when it's expected to.

- ✅ Elasticity

Explanation:-
Elasticity is the ability to acquire resources as you need them and release resources when you no longer need them. This would allow users to scale up and down quickly.

"Elasticity" is the correct answer.

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

- Economy of scale

Explanation:-"Economy of scale" incorrect. This refers to the fact that because there is a large AWS customer base, every individual AWS user pays much less on aggregate.

Q55) When a company moves an on-premises, internet-facing website to the AWS Cloud, what benefits does it obtain? (Select TWO.)

- The website shows up with higher priority in internet search engines.

Explanation:-"The website shows up with higher priority in internet search engines" is incorrect. Search Engine Optimization (SEO) sits entirely outside of the realm of AWS, and you do not gain any SEO benefits from moving to the cloud.

- ✅ Website capacity can expand or contract as website traffic changes.

Explanation:-
Website capacity expanding and contracting is a sign of elasticity, and this is one of the most popular benefits of moving to the cloud. This is defined as the ability to acquire resources as you need them and release resources when you no longer need them.

Also, when you move to the cloud you do not pay upfront for your resources as standard and move to a OPEX model (operational expenditure.)

"Website capacity can expand or contract as website traffic changes" is the correct answer.

"The company can take advantage of the pay-as-you-go pricing model" is also a correct answer.

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

- Data that is stored in the AWS Cloud is automatically encrypted.

Explanation:-"Data that is stored in the AWS Cloud is automatically encrypted" is incorrect as this sits on the customer side of the AWS Shared responsibility model and is therefore not enabled automatically.

- ✅ The company can take advantage of the pay-as-you-go pricing model.

Explanation:-
Website capacity expanding and contracting is a sign of elasticity, and this is one of the most popular benefits of moving to the cloud. This is defined as the ability to acquire resources as you need them and release resources when you no longer need them.

Also, when you move to the cloud you do not pay upfront for your resources as standard and move to a OPEX model (operational expenditure.)

"Website capacity can expand or contract as website traffic changes" is the correct answer.

"The company can take advantage of the pay-as-you-go pricing model" is also a correct answer.

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

- AWS automatically provides the company with the lowest-cost pricing model.

Explanation:-"AWS automatically provides the company with the lowest-cost pricing model" is incorrect. This is simply not true, as the price varies widely depending on many different features.

Q56)

A company is considering migrating from on-premises to the AWS Cloud. In order to handle the workload efficiently, the IT team needs to offload this heavy lifting as much as possible.

What should the IT team do to accomplish this goal?

- Overprovision compute capacity for seasonal events and traffic spikes to prevent downtime.

Explanation:-"Overprovision compute capacity for seasonal events and traffic spikes to prevent downtime" is incorrect. When you are over provisioning capacity in the cloud, you are not adhering to the best practices of the cloud by using scalability and elasticity to scale your workloads up and down as and when needed.

- Use Amazon Elastic Container Service (Amazon ECS) on Amazon EC2 instances.

Explanation:-"Use Amazon Elastic Container Service (Amazon ECS) on Amazon EC2 instances" is incorrect. ECS is a managed container service, which would only work for migrating specific containerized workloads - not for general migrations.

- ✅ Use AWS Managed Services to provision, run, and support the company infrastructure.

Explanation:-
AWS Managed Services (AMS) helps you adopt AWS at scale and operate more efficiently and securely. We leverage standard AWS services and offer guidance and execution of operational best practices with specialized automations, skills, and experience that are contextual to your environment and applications. You can easily leave a lot of the heavy lifting to AWS when you are using managed services.

"Use AWS Managed Services to provision, run, and support the company infrastructure" is the correct answer (as explained above.)

References: https://aws.amazon.com/managed-services/

- Build hardware refreshes into the operational calendar to ensure availability.

Explanation:-"Build hardware refreshes into the operational calendar to ensure availability" is incorrect. This is not the easiest way to help ensure availability and would not necessarily work.

Q57) What is the benefit of using fully managed services compared to deploying 3rd party software on EC2?

- ✅ Reduced operational overhead

Explanation:-Fully managed services reduce your operational overhead as AWS manage not just the infrastructure layer but the service layers above it. Examples are Amazon Aurora and Amazon ElastiCache where the database is managed for you.
"Reduced operational overhead" is the correct answer.

- You don't need to back-up your data

Explanation:-"You don't need to back-up your data" is incorrect. You do still need to backup your data. For instance, with Amazon ElastiCache it's up to you to configure backups to S3.

- You have greater control and flexibility

Explanation:-"You have greater control and flexibility" is incorrect. You do not have greater control and flexibility with fully managed services. AWS take more responsibility for providing the service and you therefore have fewer options. For example you may not be able to configure the performance parameters of a database as you'd like to or use your own backup or operational software.

- Improved security

Explanation:-"Improved security" is incorrect. Security is not necessarily improved by managing your own software stack. AWS are extremely good at securing their services and there is arguably less chance that they will expose vulnerabilities than a customer who deploys their own applications.

Q58) Which of the following is a benefit of moving to the AWS Cloud?

- ✅ Pay for what you use

Explanation:-
With the AWS cloud you pay for what you use. This is a significant advantage compared to on-premises infrastructure where you need to purchase more equipment than you need to allow for peak capacity. You also need to pay for that equipment upfront.
"Pay for what you use" is the correct answer.

References: https://aws.amazon.com/pricing/

- Outsource all IT operations

Explanation:-"Outsource all IT operations" is incorrect. You do not outsource all IT operations when moving to the AWS Cloud. AWS provide some higher-level managed services which reduces your operations effort but does not eliminate it.

- Capital purchases

Explanation:-"Capital purchases" is incorrect. Capital purchases are not a benefit of moving to the cloud. The AWS Cloud is mostly an operational expenditure which is favored by many CFOs.

- Long term commitments

Explanation:-"Long term commitments" is incorrect. You do not need to enter into long term commitments with the AWS Cloud. There are options for 1 or 3 year commitments to lower prices with some services but this is not an advantage of the cloud.

Q59) The ability to horizontally scale Amazon EC2 instances based on demand is an example of which concept?

- Agility

Explanation:-"Agility" is incorrect. This is an example of flexibility and speed of implementation.

- ✅ Elasticity

Explanation:-
Elasticity is the ability to dynamically adjust the capacity of a service or resource based on demand. Scaling can be vertical (e.g. increase instance size) or horizontal (e.g. add more EC2 instances).

"Elasticity" is the correct answer.

References: https://d1.awsstatic.com/whitepapers/architecture/AWS_Well-Architected_Framework.pdf

- Economy of scale

Explanation:-"Economy of scale" is incorrect. This refers to pricing benefits based on AWS purchasing large amounts of resources.

- High availability

Explanation:-"High availability" is incorrect. This is an example of resilience.

Q60) Which service can be used to cost-effectively move exabytes of data into AWS?

- AWS Snowball

Explanation:-"AWS Snowball" is incorrect. With AWS Snowball you can move up to 80TB per device. AWS call this a "petabyte-scale data transfer service".

- ✅ AWS Snowmobile

Explanation:-
With AWS Snowmobile you can move 100PB per snowmobile. AWS call this an "Exabyte-scale data transfer service".

"AWS Snowmobile" is the correct answer.

References: https://aws.amazon.com/snowmobile/

- S3 Cross-Region Replication (CRR)

Explanation:-"S3 Cross-Region Replication (CRR)" is incorrect. S3 Cross-Region Replication is used for copying data between regions, not into AWS. It is also unsuitable for moving such as huge amount of data.

- S3 Transfer Acceleration

Explanation:-"S3 Transfer Acceleration" is incorrect. S3 Transfer Acceleration is meant speed up uploads to Amazon S3 but would not be used for exabytes of data.

Q61) In which AWS service can a company collect data about the configuration, usage, and behavior of its on-premises data centers to assist in planning a migration to AWS?

AWS Resource Groups
Explanation:-"AWS Resource Groups" is incorrect. You can use resource groups to organize your AWS resources. AWS Resource Groups is the service that lets you manage and automate tasks on large numbers of resources at one time.
AWS Service Catalog
Explanation:-"AWS Service Catalog" is incorrect. AWS Service Catalog allows organizations to create and manage catalogs of IT services that are approved for use on AWS and is not related to migration.
AWS Systems Manager
Explanation:-"AWS Systems Manager" is incorrect. AWS Systems Manager provides an operations console and APIs for centralized application and resource management in hybrid environments. It is not a tool related to migration.
AWS Application Discovery Service
Explanation:-
AWS Application Discovery Service helps you plan your migration to the AWS cloud by collecting usage and configuration data about your on-premises servers.

"AWS Application Discovery Service" is the correct answer (as explained above.)

References: https://docs.aws.amazon.com/application-discovery/latest/userguide/what-is-appdiscovery.html

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Q62)

A cloud practitioner needs to migrate a 70 TB of data from an on-premises data center into the AWS Cloud. The company has a slow and unreliable internet connection.

Which AWS service can the cloud practitioner leverage to transfer the data?

AWS DataSync
Explanation:-"AWS DataSync" is incorrect. DataSync uses the internet to transfer data You can utilize Snowcone but that only holds up to 8 TB per device.
Amazon S3 Glacier
Explanation:-"Amazon S3 Glacier" is incorrect. Glacier is used for archiving data in the cloud.
AWS Storage Gateway
Explanation:-"AWS Storage Gateway" is incorrect. Storage Gateway is a service that offers options for connecting on-premises storage to the cloud.
AWS Snowball
Explanation:-
AWS Snowball is a method of transferring the data using a physical device. A Snowball Edge device can hold up to 80 TB so a single device can be used. This transfer method completely avoids the slow and unreliable internet connection.

"AWS Snowball" is the correct answer.

References: https://docs.aws.amazon.com/snowball/latest/developer-guide/specifications.html#specs-v3s-optimized

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Q63) Which AWS service does AWS Snowball Edge natively support?

AWS Trusted Advisor
Explanation:-"AWS Trusted Advisor" is incorrect. Trusted Advisor does not integrate natively with Snowball Edge.
AWS Database Migration Service (AWS DMS)
Explanation:-"AWS Database Migration Service (AWS DMS)" is incorrect. AWS DMS does not integrate natively with Snowball Edge.
Amazon EC2
Explanation:-
You can run Amazon EC2 compute instances hosted on a Snowball Edge with the sbe1, sbe-c, and sbe-g instance types. The sbe1 instance type works on devices with the Snowball Edge Storage Optimized option. The sbe-c instance type works on devices with the Snowball Edge Compute Optimized option. Both the sbe-c and sbe-g instance types work on devices with the Snowball Edge Compute Optimized with GPU option.

"Amazon EC2" is the correct answer.

References: https://docs.aws.amazon.com/snowball/latest/developer-guide/using-ec2.html#ec2-overview-edge

AWS Server Migration Service (AWS SMS)
Explanation:-"AWS Server Migration Service (AWS SMS)" is incorrect. AWS SMS does not integrate natively with Snowball Edge.