

AWS Cloud Computing Theory

Complete Solutions - 70 Questions with Detailed Reasoning

Course: Cloud Computing AWS

Type: Theory Guess Paper - Complete Solutions

Total Questions: 70

Format: Multiple Choice with Detailed Explanations

Question 1

Which AWS feature helps detect and protect against DDoS attacks?

- (a) AWS Shield ✓
- (b) AWS IAM
- (c) AWS EC2
- (d) AWS S3

Answer: (a) AWS Shield

Reasoning: AWS Shield is specifically designed to protect against Distributed Denial of Service (DDoS) attacks. It comes in two tiers: Shield Standard (free, automatic protection) and Shield Advanced (paid, enhanced protection with 24/7 DDoS Response Team support). IAM manages access control, EC2 provides compute, and S3 is storage.

Question 2

What is the primary use of AWS Regions?

- (a) To manage AWS billing
- (b) To isolate network traffic geographically ✓
- (c) To monitor EC2 instances
- (d) To compress S3 data

Answer: (b) To isolate network traffic geographically

Reasoning: AWS Regions are geographic locations containing multiple Availability Zones. They allow you to deploy resources closer to users for lower latency and compliance with data residency requirements. Each region is isolated to provide fault tolerance and stability.

Question 3

Which AWS service helps classify and protect sensitive data?

- (a) AWS Macie ✓
- (b) AWS EC2
- (c) AWS Lambda
- (d) AWS SNS

Answer: (a) AWS Macie

Reasoning: AWS Macie uses machine learning to automatically discover, classify, and protect sensitive data (like PII, financial data) in AWS. It monitors S3 buckets and alerts on potential data security risks.

Question 4

What is the function of AWS IAM?

- (a) Manage access to AWS resources ✓
- (b) Encrypt data in transit
- (c) Monitor network traffic
- (d) Launch EC2 instances

Answer: (a) Manage access to AWS resources

Reasoning: Identity and Access Management (IAM) controls who can access which AWS resources. It manages users, groups, roles, and policies to grant or restrict permissions. It's the foundation of AWS security.

Question 5

What is the purpose of versioning in Amazon S3?

- (a) Data encryption
- (b) Manage multiple versions of objects ✓
- (c) Reduce storage size
- (d) Control access to VPC

Answer: (b) Manage multiple versions of objects

Reasoning: S3 versioning keeps multiple variants of an object in the same bucket. This protects against accidental deletions and overwrites, allowing you to recover previous versions of files.

Question 6

Which cloud model offers services over the internet to multiple tenants?

- (a) Private Cloud
- (b) Hybrid Cloud
- (c) Public Cloud ✓
- (d) Dedicated Cloud

Answer: (c) Public Cloud

Reasoning: Public cloud (like AWS, Azure, GCP) is owned by third-party providers and serves multiple customers (multi-tenant) over the internet. Resources are shared but logically isolated. Private cloud serves single organizations, hybrid combines both.

Question 7

What is the primary use case of AWS Snow Family?

- (a) Real-time data analytics
- (b) Physical data migration ✓
- (c) Database auditing
- (d) Billing optimization

Answer: (b) Physical data migration

Reasoning: AWS Snow Family (Snowcone, Snowball, Snowmobile) consists of physical devices for transferring large amounts of data (petabytes) to/from AWS when network transfer would be too slow or expensive.

Question 8

What is Amazon EC2 used for?

- (a) Launching virtual servers ✓
- (b) Managing user permissions
- (c) Storing S3 data
- (d) Encrypting cloud traffic

Answer: (a) Launching virtual servers

Reasoning: Elastic Compute Cloud (EC2) provides resizable virtual servers (instances) in the cloud. You can launch, configure, and manage these virtual machines for various computing needs.

Question 9

Which of these is a valid private IPv4 address?

- (a) 172.16.0.1 ✓
- (b) 192.256.1.1
- (c) 8.8.8.8
- (d) 300.100.1.1

Answer: (a) 172.16.0.1

Reasoning: Private IPv4 ranges are: 10.0.0.0-10.255.255.255, 172.16.0.0-172.31.255.255, and 192.168.0.0-192.168.255.255. Option 172.16.0.1 falls in the second range. Option (b) is invalid (256>255), (c) is Google's public DNS, (d) exceeds maximum octet value.

Question 10

Which pricing model is based on bidding for unused capacity?

- (a) On-demand
- (b) Reserved
- (c) Spot ✓
- (d) Fixed

Answer: (c) Spot

Reasoning: Spot Instances let you bid on unused EC2 capacity at up to 90% discount. However, AWS can reclaim them with 2-minute notice when capacity is needed. Best for flexible, fault-tolerant workloads.

Question 11

What is the role of AWS VPC?

- (a) Monitor billing
- (b) Isolate network resources ✓
- (c) Manage EC2 keys
- (d) Encrypt database connections

Answer: (b) Isolate network resources

Reasoning: Virtual Private Cloud (VPC) provides an isolated virtual network where you can launch AWS resources. You control IP addressing, subnets, route tables, and network gateways, creating a secure network environment.

Question 12

In OSI, which layer routes packets across networks?

- (a) Network layer ✓
- (b) Data link layer
- (c) Physical layer
- (d) Application layer

Answer: (a) Network layer

Reasoning: The Network Layer (Layer 3) handles logical addressing (IP addresses) and routing of packets across different networks. Routers operate at this layer using protocols like IP, ICMP, and routing protocols.

Question 13

What does CIDR stand for?

- (a) Cloud Integrated Device Routing
- (b) Classless Inter-Domain Routing ✓
- (c) Cloud Instance Deployment Range
- (d) Circuit Identity for Datacenters

Answer: (b) Classless Inter-Domain Routing

Reasoning: CIDR is a method for allocating IP addresses and routing that replaces the old classful network design. It uses variable-length subnet masking (e.g., 192.168.1.0/24).

Question 14

What is the default loopback address in IPv4?

- (a) 127.0.0.1 ✓
- (b) 192.0.2.1
- (c) 10.0.0.1
- (d) 255.255.255.0

Answer: (a) 127.0.0.1

Reasoning: 127.0.0.1 (localhost) is the standard loopback address used to test network software without sending packets over the network. The entire 127.0.0.0/8 range is reserved for loopback.

Question 15

What does AWS CloudHSM do?

- (a) Host websites
- (b) Manage hardware security modules ✓
- (c) Encrypt EC2
- (d) Automate backups

Answer: (b) Manage hardware security modules

Reasoning: CloudHSM provides dedicated hardware security modules in the AWS cloud for cryptographic key storage and operations. It meets strict compliance requirements (FIPS 140-2 Level 3) for key management.

Question 16

What is an Amazon Machine Image (AMI)?

- (a) A template to launch EC2 instances ✓
- (b) A VPC subnet
- (c) A private S3 bucket
- (d) A billing calculator

Answer: (a) A template to launch EC2 instances

Reasoning: An AMI is a pre-configured template containing the OS, applications, and configurations needed to launch EC2 instances. It's like a snapshot that can be used to create identical instances quickly.

Question 17

Which AWS service is best for managing relational databases?

- (a) Amazon RDS ✓
- (b) DynamoDB
- (c) Lambda
- (d) S3

Answer: (a) Amazon RDS

Reasoning: Relational Database Service (RDS) is a managed service for SQL databases (MySQL, PostgreSQL, Oracle, SQL Server, MariaDB, Aurora). It handles backups, patching, and scaling automatically.

Question 18

What AWS service offers managed NoSQL databases?

- (a) DynamoDB ✓
- (b) RDS
- (c) Redshift
- (d) Athena

Answer: (a) DynamoDB

Reasoning: DynamoDB is AWS's fully managed NoSQL database service offering single-digit millisecond latency at any scale. It's serverless and handles key-value and document data models.

Question 19

Which AWS service uses physical devices for data migration?

- (a) Snowball ✓
- (b) Lambda
- (c) S3
- (d) EC2

Answer: (a) Snowball

Reasoning: Snowball is a petabyte-scale physical data transport device. You load data onto it at your location, then ship it to AWS for upload - much faster than internet transfer for large datasets.

Question 20

What is the maximum object size in Amazon S3?

- (a) 5 TB ✓
- (b) 100 GB
- (c) 10 TB
- (d) 2 TB

Answer: (a) 5 TB

Reasoning: A single S3 object can be up to 5 TB. For uploads larger than 100 MB, AWS recommends using multipart upload, which is required for objects over 5 GB.

Question 21

Which protocol is BGP?

- (a) Path-vector ✓
- (b) Link-state
- (c) Distance-vector
- (d) Shortest path

Answer: (a) Path-vector

Reasoning: Border Gateway Protocol (BGP) is a path-vector protocol. It maintains the path information (AS path) that gets updated dynamically as the topology changes. It's used for inter-domain routing on the internet.

Question 22

What is the function of Amazon S3 Transfer Acceleration?

- (a) Improve upload speed over long distances ✓
- (b) Compress S3 objects
- (c) Encrypt all S3 data
- (d) Automate billing reports

Answer: (a) Improve upload speed over long distances

Reasoning: Transfer Acceleration uses CloudFront's globally distributed edge locations to accelerate uploads to S3. Data is routed through AWS's optimized network paths, speeding up long-distance transfers.

Question 23

What is AWS Storage Gateway used for?

- (a) Hybrid cloud storage integration ✓
- (b) Server monitoring
- (c) Email delivery
- (d) Resource tagging

Answer: (a) Hybrid cloud storage integration

Reasoning: Storage Gateway connects on-premises environments with cloud storage, providing seamless integration between local applications and AWS storage (S3, EBS, Glacier) for hybrid cloud architectures.

Question 24

Which routing protocol uses autonomous systems?

- (a) BGP ✓
- (b) OSPF
- (c) RIP
- (d) EIGRP

Answer: (a) BGP

Reasoning: BGP is specifically designed to route between Autonomous Systems (AS) - large networks or groups of networks under single administrative control. Each AS has a unique AS number (ASN).

Question 25

What does the OSPF Hello packet do?

- (a) Discover neighboring routers ✓
- (b) Configure EC2
- (c) Create firewall rules
- (d) Encrypt VPC

Answer: (a) Discover neighboring routers

Reasoning: OSPF Hello packets are sent periodically to discover and maintain neighbor relationships. They verify bidirectional communication and ensure neighbors are alive. Default interval is 10 seconds on broadcast networks.

Question 26

What is the main use of IAM policies?

- (a) Grant or restrict AWS resource access ✓
- (b) Launch EC2

- (c) Encrypt database
- (d) Migrate storage

Answer: (a) Grant or restrict AWS resource access

Reasoning: IAM policies are JSON documents that define permissions - what actions are allowed or denied on which resources. They're attached to users, groups, or roles to control access.

Question 27

What is the administrative distance of BGP?

- (a) 20 ✓
- (b) 90
- (c) 100
- (d) 110

Answer: (a) 20

Reasoning: External BGP (eBGP) has an administrative distance of 20. Administrative distance determines route preference - lower values are preferred. Internal BGP (iBGP) has AD of 200.

Question 28

What layer of OSI defines physical specs of connections?

- (a) Physical layer ✓
- (b) Application layer
- (c) Network layer
- (d) Session layer

Answer: (a) Physical layer

Reasoning: The Physical Layer (Layer 1) defines electrical, mechanical, and physical specifications: cables, connectors, voltages, pin layouts, hubs, repeaters, and how bits are transmitted over physical media.

Question 29

Which AWS service helps migrate databases with minimal downtime?

- (a) AWS DMS ✓
- (b) AWS SNS
- (c) CloudHSM
- (d) ECS

Answer: (a) AWS DMS

Reasoning: Database Migration Service (DMS) enables easy database migration with minimal downtime. It supports homogeneous (Oracle to Oracle) and heterogeneous (Oracle to Aurora) migrations while keeping source database operational.

Question 30

What is the primary purpose of Amazon DynamoDB?

- (a) NoSQL database ✓
- (b) Data warehouse
- (c) CDN
- (d) File storage

Answer: (a) NoSQL database

Reasoning: DynamoDB is a fully managed NoSQL database service providing fast, predictable performance with seamless scalability. It's designed for applications needing consistent, single-digit millisecond latency.

Question 31

What component of VPC routes public internet traffic?

- (a) Internet Gateway ✓
- (b) NAT Gateway
- (c) VPC Peering
- (d) Subnet

Answer: (a) Internet Gateway

Reasoning: An Internet Gateway (IGW) is a horizontally scaled, redundant VPC component that allows communication between instances in your VPC and the internet. One IGW per VPC, attached to enable internet access.

Question 32

Which AWS tool estimates service cost?

- (a) Pricing Calculator ✓
- (b) Trusted Advisor
- (c) CloudWatch
- (d) Inspector

Answer: (a) Pricing Calculator

Reasoning: AWS Pricing Calculator helps estimate monthly AWS costs before deployment. You configure services and see pricing estimates. Trusted Advisor gives recommendations, CloudWatch monitors, Inspector audits security.

Question 33

What type of IP address is fe80::/10?

- (a) Link-local ✓
- (b) Loopback
- (c) Multicast
- (d) Reserved

Answer: (a) Link-local

Reasoning: fe80::/10 is reserved for IPv6 link-local addresses, used for communication on a single network segment. They're automatically configured and not routable beyond the local link.

Question 34

Which OSI layer ensures end-to-end communication?

- (a) Transport ✓
- (b) Network
- (c) Physical
- (d) Session

Answer: (a) Transport

Reasoning: The Transport Layer (Layer 4) provides end-to-end communication services, ensuring data is delivered reliably and in order. TCP provides reliable connection-oriented service; UDP provides connectionless service.

Question 35

Which cloud model combines private and public cloud?

- (a) Hybrid ✓
- (b) Community
- (c) Public
- (d) Edge

Answer: (a) Hybrid

Reasoning: Hybrid cloud combines private cloud (on-premises or dedicated infrastructure) with public cloud services, allowing data and applications to move between them for greater flexibility and deployment options.

Question 36

How many bits does an IPv6 address have?

- (a) 128 ✓
- (b) 64
- (c) 32
- (d) 256

Answer: (a) 128

Reasoning: IPv6 addresses are 128 bits long (vs IPv4's 32 bits), written in hexadecimal with 8 groups of 4 hex digits (e.g., 2001:0db8:85a3:0000:0000:8a2e:0370:7334). This provides approximately 340 undecillion addresses.

Question 37

What is EC2 Reserved Instance?

- (a) Long-term discounted instance ✓
- (b) EC2 with no root access
- (c) Spot Instance replacement
- (d) Backup-only instance

Answer: (a) Long-term discounted instance

Reasoning: Reserved Instances provide significant discounts (up to 75%) compared to On-Demand pricing in exchange for 1 or 3-year commitment. Best for steady-state workloads with predictable usage.

Question 38

What is the default loopback address for IPv6?

- (a) ::1/128 ✓
- (b) fe80::1
- (c) 2001::1
- (d) ff00::1

Answer: (a) ::1/128

Reasoning: ::1/128 (or 0:0:0:0:0:0:0:1) is the IPv6 loopback address, equivalent to IPv4's 127.0.0.1. The :: notation represents consecutive zero fields.

Question 39

What is AWS Lambda used for?

- (a) Serverless compute ✓
- (b) VPN tunneling
- (c) Monitoring instances
- (d) Static IP assignments

Answer: (a) Serverless compute

Reasoning: Lambda runs code without provisioning servers. You upload code, Lambda handles execution, scaling, and infrastructure. You pay only for compute time used. Perfect for event-driven, microservices architectures.

Question 40

What AWS service manages AMI versioning?

- (a) Systems Manager ✓
- (b) Lambda
- (c) S3
- (d) EC2 Auto Scaling

Answer: (a) Systems Manager

Reasoning: AWS Systems Manager helps automate operational tasks including AMI lifecycle management. EC2 Image Builder also helps automate AMI creation, but Systems Manager provides broader versioning and management capabilities.

Question 41

Which tool monitors AWS services?

- (a) CloudWatch ✓
- (b) GuardDuty
- (c) VPC Flow Logs
- (d) WAF

Answer: (a) CloudWatch

Reasoning: CloudWatch collects and tracks metrics, logs, and events from AWS resources. It provides monitoring, alerting, and visualization. GuardDuty is threat detection, VPC Flow Logs capture network traffic, WAF is a firewall.

Question 42

What does NAT Gateway do?

- (a) Enable private instances to access internet ✓
- (b) Assign public IPs
- (c) Encrypt data
- (d) Isolate subnets

Answer: (a) Enable private instances to access internet

Reasoning: NAT (Network Address Translation) Gateway allows instances in private subnets to initiate outbound internet connections while preventing inbound connections from the internet. It translates private IPs to public IPs.

Question 43

What AWS service is best for large-scale analytics?

- (a) Redshift ✓
- (b) DynamoDB
- (c) S3
- (d) EC2

Answer: (a) Redshift

Reasoning: Amazon Redshift is a fully managed data warehouse service designed for large-scale data analytics and business intelligence. It's optimized for OLAP queries on petabyte-scale datasets using columnar storage.

Question 44

What is the max IPv4 octet value?

- (a) 255 ✓
- (b) 256
- (c) 254
- (d) 512

Answer: (a) 255

Reasoning: Each IPv4 octet is 8 bits, ranging from 0-255 ($2^8 = 256$ possible values starting from 0). IPv4 addresses have 4 octets (e.g., 192.168.1.254).

Question 45

What defines a group of AWS resources under same control?

- (a) VPC ✓
- (b) Region
- (c) Availability Zone
- (d) Subnet

Answer: (a) VPC

Reasoning: A VPC (Virtual Private Cloud) is a logically isolated network where you group and control AWS resources. Regions are geographic locations, Availability Zones are data centers within regions, subnets are subdivisions of VPCs.

Question 46

What is the benefit of AWS CloudFront?

- (a) Global content delivery ✓
- (b) Email service
- (c) Backup archive
- (d) Key encryption

Answer: (a) Global content delivery

Reasoning: CloudFront is AWS's Content Delivery Network (CDN) that delivers content through edge locations worldwide. It reduces latency by caching content closer to users and provides DDoS protection.

Question 47

Which AWS database is used for analytics & data warehousing?

- (a) Redshift ✓
- (b) Aurora
- (c) DynamoDB
- (d) Neptune

Answer: (a) Redshift

Reasoning: Redshift is specifically designed for data warehousing and analytics. Aurora is a relational database, DynamoDB is NoSQL for transactions, Neptune is for graph databases.

Question 48

What is S3 Glacier used for?

- (a) Long-term archival ✓
- (b) Fast compute
- (c) Content delivery
- (d) Load balancing

Answer: (a) Long-term archival

Reasoning: S3 Glacier is a low-cost storage class for data archiving and long-term backup. Retrieval times range from minutes to hours. It's ideal for data accessed infrequently (compliance, archives).

Question 49

What OSI layer defines routing and addressing?

- (a) Network ✓
- (b) Transport
- (c) Session
- (d) Application

Answer: (a) Network

Reasoning: The Network Layer (Layer 3) handles logical addressing (IP) and routing. It determines the best path for data to travel from source to destination across multiple networks.

Question 50

What is the purpose of a Security Group in AWS?

- (a) Firewall for EC2 ✓
- (b) Encrypt S3
- (c) Define billing alerts
- (d) Isolate Regions

Answer: (a) Firewall for EC2

Reasoning: Security Groups act as virtual firewalls controlling inbound and outbound traffic to EC2 instances. They use allow rules (no deny rules) and are stateful - return traffic is automatically allowed.

Question 51

What pricing model offers fixed monthly rates for EC2?

- (a) Reserved ✓
- (b) Spot
- (c) On-demand
- (d) Free Tier

Answer: (a) Reserved

Reasoning: Reserved Instances provide capacity reservation with fixed monthly payments for 1 or 3 years at discounted rates. You commit to specific instance types in exchange for lower costs compared to on-demand.

Question 52

What is the default administrative distance of OSPF?

- (a) 110 ✓
- (b) 100
- (c) 120
- (d) 90

Answer: (a) 110

Reasoning: OSPF has an administrative distance of 110. For comparison: directly connected = 0, static routes = 1, eBGP = 20, EIGRP = 90, RIP = 120, iBGP = 200.

Question 53

What does Amazon VPC Peering do?

- (a) Connects two VPCs ✓
- (b) Encrypts subnet traffic
- (c) Launches EC2
- (d) Compresses packets

Answer: (a) Connects two VPCs

Reasoning: VPC Peering creates a direct network connection between two VPCs, allowing them to communicate as if they're on the same network. Traffic stays on AWS's private network without using public internet.

Question 54

What is the Amazon Route 53 used for?

- (a) DNS and domain management ✓
- (b) Database monitoring
- (c) Load balancing EC2
- (d) Replicating S3

Answer: (a) DNS and domain management

Reasoning: Route 53 is AWS's scalable Domain Name System (DNS) web service. It routes end users to applications by translating domain names to IP addresses and provides domain registration and health checking.

Question 55

What tool helps automate AMI creation?

- (a) Systems Manager
- (b) CloudWatch
- (c) EC2 Image Builder ✓
- (d) S3 Lifecycle

Answer: (c) EC2 Image Builder

Reasoning: EC2 Image Builder automates the creation, maintenance, validation, and distribution of AMIs. It provides a pipeline to build secure, up-to-date images with your configurations and software.

Question 56

What is the function of AWS Trusted Advisor?

- (a) Provides cost and security recommendations ✓
- (b) Encrypts volumes
- (c) Blocks unwanted traffic
- (d) Automates migration

Answer: (a) Provides cost and security recommendations

Reasoning: Trusted Advisor inspects your AWS environment and provides real-time recommendations across five categories: cost optimization, performance, security, fault tolerance, and service limits.

Question 57

What AWS service manages VPNs?

- (a) AWS VPN ✓
- (b) Direct Connect
- (c) Shield
- (d) Batch

Answer: (a) AWS VPN

Reasoning: AWS VPN (including Site-to-Site VPN and Client VPN) creates encrypted connections between your network and AWS. Direct Connect provides dedicated physical connections but isn't specifically for VPN.

Question 58

What type of storage is EBS?

- (a) Block ✓
- (b) Object
- (c) File
- (d) Archive

Answer: (a) Block

Reasoning: Elastic Block Store (EBS) provides block-level storage volumes for EC2. Block storage divides data into blocks with unique identifiers. S3 is object storage, EFS is file storage, Glacier is archive.

Question 59

What component allows subnets to access each other within a VPC?

- (a) Route Table ✓
- (b) NAT
- (c) IAM
- (d) S3 Bucket

Answer: (a) Route Table

Reasoning: Route Tables contain routing rules determining where network traffic is directed. By default, all subnets in a VPC can communicate through the local route in the route table.

Question 60

What is AWS Elastic Beanstalk used for?

- (a) Web app deployment ✓
- (b) Video streaming
- (c) EC2 snapshots
- (d) S3 analytics

Answer: (a) Web app deployment

Reasoning: Elastic Beanstalk is a Platform-as-a-Service (PaaS) that simplifies deploying and scaling web applications. You upload code, and it automatically handles deployment, capacity provisioning, load balancing, and monitoring.

Question 61

What defines a range of IPs in a VPC?

- (a) CIDR block ✓
- (b) Subnet mask
- (c) Public IP
- (d) Availability Zone

Answer: (a) CIDR block

Reasoning: A CIDR block (e.g., 10.0.0.0/16) defines the IP address range for your VPC. The number after the slash indicates how many bits are used for the network portion, determining the size of the address space.

Question 62

What is the purpose of BGP in AWS networking?

- (a) External routing ✓
- (b) Internal load balancing
- (c) EC2 backup
- (d) EBS encryption

Answer: (a) External routing

Reasoning: BGP is used in AWS for routing between your network and AWS (e.g., with Direct Connect, VPN). It handles external routing and route propagation between autonomous systems.

Question 63

What is EC2 Auto Scaling used for?

- (a) Add/remove instances based on demand ✓
- (b) Create AMIs
- (c) Tagging resources
- (d) Manage DNS

Answer: (a) Add/remove instances based on demand

Reasoning: Auto Scaling automatically adjusts the number of EC2 instances based on demand, maintaining application availability and optimizing costs. It scales out during traffic spikes and scales in during low demand.

Question 64

Which service provides insights into AWS spend?

- (a) AWS Cost Explorer ✓
- (b) CloudTrail
- (c) Systems Manager
- (d) Redshift

Answer: (a) AWS Cost Explorer

Reasoning: Cost Explorer provides visualizations of AWS costs and usage over time. You can analyze spending patterns, identify cost drivers, and forecast future costs. CloudTrail logs API calls, not costs.

Question 65

What feature replicates S3 data to other regions?

- (a) Cross-Region Replication ✓
- (b) Glacier Sync
- (c) CloudFront Push
- (d) EC2 Mirroring

Answer: (a) Cross-Region Replication

Reasoning: Cross-Region Replication (CRR) automatically replicates objects from a source S3 bucket to destination buckets in different AWS Regions, providing lower latency access and disaster recovery.

Question 66

What service provides serverless containers?

- (a) AWS Fargate ✓
- (b) ECS Classic
- (c) Batch
- (d) EC2

Answer: (a) AWS Fargate

Reasoning: Fargate is a serverless compute engine for containers that works with ECS and EKS. You don't manage servers - just define and run containers. AWS handles infrastructure provisioning and scaling.

Question 67

What is the use of a Launch Template?

- (a) Standardize EC2 configurations ✓
- (b) Encrypt Lambda
- (c) Monitor billing
- (d) Route subnets

Answer: (a) Standardize EC2 configurations

Reasoning: Launch Templates define instance configuration parameters (AMI, instance type, key pairs, security groups) that can be reused when launching instances. They support versioning and are more feature-rich than launch configurations.

Question 68

What AWS service helps build CI/CD pipelines?

- (a) CodePipeline ✓
- (b) CloudFormation
- (c) Macie
- (d) KMS

Answer: (a) CodePipeline

Reasoning: AWS CodePipeline is a continuous integration and continuous delivery (CI/CD) service that automates build, test, and deployment phases. CloudFormation is infrastructure-as-code, not specifically for CI/CD pipelines.

Question 69

What OSI layer is responsible for encryption and decryption?

- (a) Presentation ✓
- (b) Network
- (c) Transport
- (d) Physical

Answer: (a) Presentation

Reasoning: The Presentation Layer (Layer 6) handles data representation, encryption/decryption, and compression. It ensures data sent from one application layer can be read by another, translating between different formats.

Question 70

Which AWS service scans containers for vulnerabilities?

- (a) Amazon Inspector ✓
- (b) CodeDeploy
- (c) Trusted Advisor
- (d) GuardDuty

Answer: (a) Amazon Inspector

Reasoning: Amazon Inspector is an automated security assessment service that scans workloads for vulnerabilities and network exposure, including EC2 instances and container images in ECR. GuardDuty is threat detection.

Answer Key - Quick Reference

1. (a) AWS Shield
2. (b) Isolate network traffic geographically
3. (a) AWS Macie
4. (a) Manage access to AWS resources
5. (b) Manage multiple versions of objects
6. (c) Public Cloud
7. (b) Physical data migration
8. (a) Launching virtual servers
9. (a) 172.16.0.1
10. (c) Spot
11. (b) Isolate network resources
12. (a) Network layer
13. (b) Classless Inter-Domain Routing