

Q1. What is AWS?

Answer: AWS (Amazon Web Services) is a cloud computing platform providing on-demand services like compute, storage, databases, and networking.

Q2. What is EC2?

Answer: EC2 is a virtual server in AWS used to run applications.

Q3. What is S3?

Answer: S3 is an object storage service used to store and retrieve data.

Q4. What is IAM?

Answer: IAM manages users, roles, and permissions in AWS.

Q5. What is VPC?

Answer: VPC is a logically isolated virtual network in AWS.

Q6. Difference between public and private subnet?

Answer: Public subnet has internet access, private subnet does not.

Q7. What is Security Group?

Answer: It is a virtual firewall that controls inbound and outbound traffic.

Q8. What is NACL?

Answer: Network ACL is a stateless firewall at subnet level.

Q9. What is Auto Scaling?

Answer: Automatically adjusts EC2 instances based on load.

Q10. What is Load Balancer?

Answer: Distributes traffic across multiple targets.

Q11. Types of Load Balancers?

Answer: Application, Network, and Classic Load Balancers.

Q12. What is RDS?

Answer: Managed relational database service.

Q13. Supported RDS engines?

Answer: MySQL, PostgreSQL, Oracle, SQL Server, MariaDB, Aurora.

Q14. What is DynamoDB?

Answer: A fully managed NoSQL key-value database.

Q15. What is CloudWatch?

Answer: Monitoring and logging service in AWS.

Q16. What is CloudTrail?

Answer: Tracks AWS API calls for auditing.

Q17. What is Elastic Beanstalk?

Answer: PaaS service for deploying applications easily.

Q18. What is ECS?

Answer: Elastic Container Service for running Docker containers.

Q19. ECS vs EKS?

Answer: ECS is AWS native, EKS is Kubernetes-based.

Q20. What is Lambda?

Answer: Serverless compute service to run code without servers.

Q21. Lambda timeout limit?

Answer: Maximum 15 minutes.

Q22. What is API Gateway?

Answer: Creates and manages REST and HTTP APIs.

Q23. What is SNS?

Answer: Simple Notification Service for pub/sub messaging.

Q24. What is SQS?

Answer: Queue service for decoupling applications.

Q25. SQS vs SNS?

Answer: SQS is queue-based, SNS is topic-based.

Q26. What is FIFO queue?

Answer: Ensures exactly-once processing and ordering.

Q27. What is Route 53?

Answer: DNS and domain management service.

Q28. What is CloudFront?

Answer: Content Delivery Network (CDN).

Q29. What is EBS?

Answer: Block storage for EC2 instances.

Q30. EBS vs S3?

Answer: EBS is block storage, S3 is object storage.

Q31. What is AMI?

Answer: Amazon Machine Image used to launch EC2.

Q32. What is Blue-Green deployment?

Answer: Two environments to reduce downtime.

Q33. What is Canary deployment?

Answer: Gradual traffic shift to new version.

Q34. What is Infrastructure as Code?

Answer: Managing infrastructure using code.

Q35. What is CloudFormation?

Answer: IaC service using JSON/YAML templates.

Q36. What is Terraform?

Answer: Third-party IaC tool.

Q37. What is AWS CLI?

Answer: Command-line interface to manage AWS.

Q38. What is SDK?

Answer: Libraries to interact with AWS services.

Q39. AWS SDK for Java used for?

Answer: Integrating Java apps with AWS services.

Q40. How Java app connects to S3?

Answer: Using AWS SDK with IAM credentials.

Q41. How to secure AWS credentials?

Answer: Use IAM roles instead of hardcoding.

Q42. What is STS?

Answer: Security Token Service for temporary credentials.

Q43. What is KMS?

Answer: Key Management Service for encryption.

Q44. Encryption at rest vs transit?

Answer: Stored data vs data in motion.

Q45. What is Aurora?

Answer: AWS high-performance RDS engine.

Q46. What is Multi-AZ?

Answer: High availability deployment across AZs.

Q47. What is Read Replica?

Answer: Read-only DB copy for scaling reads.

Q48. How to deploy Spring Boot on AWS?

Answer: Using EC2, Elastic Beanstalk, or ECS.

Q49. What is Docker?

Answer: Containerization platform.

Q50. Docker vs VM?

Answer: Containers are lightweight compared to VMs.

Q51. What is CI/CD?

Answer: Continuous Integration and Deployment.

Q52. AWS CI/CD tools?

Answer: CodeCommit, CodeBuild, CodeDeploy, CodePipeline.

Q53. What is CodePipeline?

Answer: Automates build-test-deploy process.

Q54. What is Blue/Green in CodeDeploy?

Answer: Zero-downtime deployment strategy.

Q55. What is Elastic IP?

Answer: Static public IP for EC2.

Q56. What is Bastion Host?

Answer: Secure jump server for private instances.

Q57. What is Shared Responsibility Model?

Answer: AWS secures cloud, user secures applications.

Q58. What is Region?

Answer: Geographical area with multiple AZs.

Q59. What is Availability Zone?

Answer: Isolated data centers in a region.

Q60. What is Edge Location?

Answer: Used by CloudFront for caching.

Q61. How to handle secrets?

Answer: Use AWS Secrets Manager.

Q62. What is Secrets Manager?

Answer: Secure storage for credentials.

Q63. What is Parameter Store?

Answer: Store config values securely.

Q64. What is Cost Explorer?

Answer: Analyze AWS spending.

Q65. What is Free Tier?

Answer: Limited free AWS services for beginners.

Q66. How to reduce AWS cost?

Answer: Auto scaling, reserved instances, monitoring.

Q67. What is Reserved Instance?

Answer: Prepaid EC2 at lower cost.

Q68. What is Spot Instance?

Answer: Unused EC2 capacity at discount.

Q69. Spot vs On-Demand?

Answer: Cheaper but interruptible.

Q70. What is Throttling?

Answer: Limiting request rate.

Q71. How AWS handles high traffic?

Answer: Auto Scaling + Load Balancer.

Q72. What is Failover?

Answer: Switching to backup system.

Q73. What is Disaster Recovery?

Answer: Restoring systems after failure.

Q74. DR strategies?

Answer: Backup, Pilot Light, Warm Standby, Multi-site.

Q75. How Java microservices communicate?

Answer: REST, SNS, SQS, Kafka.

Q76. Kafka vs SQS?

Answer: Kafka is stream-based, SQS is queue-based.

Q77. What is Event-driven architecture?

Answer: System reacts to events asynchronously.

Q78. What is Serverless?

Answer: No server management by developer.

Q79. When to use Lambda?

Answer: For short, event-driven tasks.

Q80. AWS best practice for Java dev?

Answer: Use IAM roles, monitoring, auto-scaling.