

Howard University
School of Engineering & Architecture
Department of Electrical Engineering & Computer Science

Large Scale / OO Programming
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Mock AWS Certified Cloud Practitioner Examination

65 questions | 1 hour 30 minutes | 70% correct required to pass

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Instructions: You are not allowed to collaborate or use any internet resources. Please note that some of the questions are marked to have multiple answers. No partial credit.

Note: your cameras should be on during the entire duration of the exam. Failure to do so can result in receiving a zero for this exam.

Completed exams should be e-mailed to bwoolfolk@whiteboardfederal.com

OR uploaded to your repo under package org.howard.edu.lsp.aws

1. Which AWS service is used to run code without provisioning or managing servers?

- a) Amazon EC2
- b) AWS Lambda
- c) AWS Elastic Beanstalk
- d) Amazon ECS

Your Answer(s): (b)

2. Which AWS service provides object storage with high availability and durability?

- a) Amazon EBS
- b) Amazon EFS
- c) Amazon S3
- d) Amazon RDS

Your Answer(s): (c)

3. What does AWS offer to help migrate databases to the cloud?

- a) Amazon Aurora
- b) AWS Snowball
- c) AWS Database Migration Service
- d) Amazon RDS

Your Answer(s): (c)

4. Which AWS services can be used to decouple components of a microservices based application on AWS Cloud? **(Select TWO)**

- a) Amazon Simple Queue Service (SQS)
- b) Amazon Elastic Compute Cloud (Amazon EC2)
- c) AWS Lambda
- d) AWS Step Functions
- e) Amazon Simple Notification Service (SNS)

Your Answer(s): (a) & (e)

5. What is a benefit of using Amazon EC2 Spot Instances?

- a) Consistent performance
- b) Long-term storage
- c) Reduced cost
- d) Free tier eligibility

Your Answer(s): (c)

6. What is the primary benefit of deploying an application across multiple Availability Zones?

- a) Lower latency
- b) Cost optimization
- c) High availability
- d) Simplified monitoring

Your Answer(s): (c)

7. An organization maintains a separate Virtual Private Cloud (VPC) for each of its business units. Two units need to privately share data. Which is the most optimal way of privately sharing data between the two VPCs?

- a) AWS Site-to-Site VPH
- b) VPC peering connection
- c) Amazon Lightsail
- d) VPC Endpoint
- e) AWS Direct Connect

Your Answer(s): (b)

8. Which AWS service enables users to provision infrastructure using code?

- a) Amazon EC2
- b) AWS CloudFormation
- c) AWS Config
- d) Amazon Inspector

Your Answer(s): (b)

9. Which of the following is a recommended way to provide programmatic access to AWS resources?

- a) Use Access Key ID and Secret Access Key to access AWS resources programmatically
- b) Use AWS Multi-Factor Authentication (AWS MFA) to access AWS resources programmatically
- c) Use IAM user group to access AWS resources programmatically
- d) Use IAM user group to access AWS resources programmatically

Your Answer(s): (a)

10. Which of the following are examples of AWS managed services? **(Select THREE)**

- a) Amazon RDS
- b) Amazon EC2
- c) AWS Lambda
- d) Amazon S3
- e) Amazon VPC

Your Answer(s): (a), (c), (d)

11. Which service helps you detect security threats using machine learning?

- a) AWS Shield
- b) Amazon Macie
- c) Amazon GuardDuty
- d) AWS Config

Your Answer(s): (c)

12. What is an Availability Zone in AWS?

- a) A geographic region
- b) A data center within a region
- c) A virtual private network
- d) A web app

Your Answer(s): (b)

13. What AWS service is used to register domain names?

- a) Amazon CloudFront
- b) Amazon Route 53
- c) Amazon VPC
- d) AWS Global Accelerator

Your Answer(s): (b)

14. Which service provides on-demand access to AWS compliance and security reports?

- a) AWS CloudTrail
- b) AWS Artifact
- c) AWS Config
- d) AWS IAM

Your Answer(s): (b)

15. Which of the following statements are CORRECT regarding the AWS VPC service?
(Select TWO)

- a) A Security Group can have both allow and deny rules
- b) A Network Address Translation instance (NAT instance) is managed by AWS
- c) A Security Group can have allow rules only
- d) A Network Address Translation gateway (NAT gateway) is managed by AWS
- e) A network access control list (network ACL) can have allow rules only

Your Answer(s): (c), (d)

16. What AWS service lets you run containerized applications without managing servers?

- a) Amazon EC2
- b) Amazon RDS
- c) AWS Fargate
- d) AWS Lambda

Your Answer(s): (c)

17. Which of the following is a key benefit of using AWS Auto Scaling?

- a) Enhanced security
- b) Improved application code
- c) Automatically adjusts resources
- d) Backup management

Your Answer(s): (c)

18. Which AWS service allows you to host and scale web applications?

- a) AWS Cloud9
- b) AWS Elastic Beanstalk

- c) Amazon Inspector
- d) AWS Secrets Manager

Your Answer(s): (b)

19. What AWS tool provides recommendations for cost optimization and security?

- a) AWS Config
- b) AWS CloudTrail
- c) AWS Trusted Advisor
- d) AWS Artifact

Your Answer(s): (c)

20. Which of the following services are serverless? **(Select TWO)**

- a) Amazon EC2
- b) AWS Lambda
- c) Amazon RDS
- d) Amazon S3

Your Answer(s): (b), (d)

21. Which of the following statements are CORRECT regarding the Availability Zone (AZ) specific characteristics of Amazon Elastic Block Store (EBS) and Amazon Elastic File System (Amazon EFS) storage types?

- a) EBS volume can be attached to one or more instances in multiple Availability Zones (AZ) and EFS file system can be mounted on instances in the same Availability Zone (AZ)
- b) EBS volume can be attached to a single instance in the same Availability Zone (AZ) and EFS file system can only be mounted on instances in the same Availability Zone (AZ)

- c) EBS volume can be attached to one or more instances in multiple Availability Zones (AZ) and EFS file system can be mounted on instances across multiple Availability Zones (AZ)
- d) EBS volume can be attached to a single instance in the same Availability Zone (AZ) whereas EFS file system can be mounted on instances across multiple Availability Zones (AZ)

Your Answer(s): (d)

22. Which of the following is a benefit of using AWS managed services such as Amazon Relational Database Service (Amazon RDS)?

- a) The customer needs to patch the underlying OS
- b) The performance of AWS managed Amazon Relational Database Service (Amazon RDS) instance is better than a customer-managed database instance
- c) The customer needs to manage database backups
- d) There is no need to optimize database instance type and size

Your Answer(s): (b)

23. What is the function of IAM roles?

- a) Store EC2 snapshots
- b) Encrypt S3 buckets
- c) Grant permissions to AWS services
- d) Create backup plans

Your Answer(s): (c)

24. Which of the following are AWS database services? **(Select TWO)**

- a) Amazon Aurora
- b) Amazon Redshift
- c) Amazon CloudFront

d) Amazon Route 53

Your Answer(s): (a), (b)

25. A Silicon Valley based healthcare startup stores anonymized patient health data on Amazon S3. The CTO further wants to ensure that any sensitive data on S3 is discovered and identified to prevent any sensitive data leaks. As a Cloud Practitioner, which AWS service would you recommend addressing this use-case?

- a) Amazon Polly
- b) AWS Glue
- c) Amazon Macie
- d) AWS Secrets Manager

Your Answer(s): (c)

26. A data analytics company is running a proprietary batch analytics application on AWS and wants to use a storage service which would be accessed by hundreds of EC2 instances simultaneously to append data to existing files. As a Cloud Practitioner, which AWS service would you suggest for this use-case?

- a) Amazon Elastic File System (EFS)
- b) Amazon Elastic Block Store (EBS)
- c) Amazon Simple Storage System (S3)
- d) Instance Store

Your Answer(s): (a)

27. Which of the following AWS services can be used to connect a company's on-premises environment to a VPC without using the public internet?

- a) VPC Endpoint
- b) AWS Direct Connect
- c) AWS Site-to-Site VPN

d) Internet Gateway

Your Answer(s): (b)

28. A research group wants to use EC2 instances to run a scientific computation application that has a fault tolerant architecture. The application needs high-performance hardware disks that provide fast I/O performance. As a Cloud Practitioner, which of the following storage options would you recommend as the MOST cost-effective solution?

- a) Instance Store
- b) Amazon Elastic File System (Amazon EFS)
- c) Amazon Elastic Block Store (EBS)
- d) Amazon Simple Storage Service (Amazon S3) - Amazon Simple Storage Service (Amazon S3) is an object storage service that offers industry-leading scalability, data availability, security, and performance. S3 is not available as a hardware disk on the instance, so this option is not correct.

Your Answer(s): (a)

29. A big data analytics company is moving its IT infrastructure from an on-premises data center to AWS Cloud. The company has some server-bound software licenses that it wants to use on AWS. As a Cloud Practitioner, which of the following EC2 instance types would you recommend to the company?

- a) Dedicated Instance
- b) Dedicated Host
- c) Reserved Instance (RI)
- d) On-Demand Instance

Your Answer(s): (b)

30. A university provides access to AWS services for its students to submit their research data for analysis. The university is looking at the most cost-effective approach for recovering from disasters and it can tolerate data loss of a few hours. Which disaster recovery strategy is well-suited for this use case?

- a) Backup and restore strategy
- b) Multi-site active/active strategy
- c) Pilot light strategy
- d) Warm standby strategy

Your Answer(s): (a)

31. A company is looking at real-time processing of streaming big data for their ad-tech platform. Which of the following AWS services is the right choice for this requirement?

- a) Amazon EMR
- b) Amazon Kinesis Data Streams
- c) Amazon Redshift
- d) Amazon Simple Queue Service (Amazon SQS)

Your Answer(s): (b)

32. Which of the following AWS services will help provision a logically isolated network for your AWS resources?

- a) Amazon Route 53
- b) AWS PrivateLink
- c) AWS Firewall Manager
- d) Amazon Virtual Private Cloud (Amazon VPC)

Your Answer(s): (d)

33. A company wants to establish a private, dedicated connection between AWS and its on-premises data center. Which AWS service is the right choice for this requirement?

- a) AWS Direct Connect
- b) AWS Site-to-Site VPN
- c) Amazon API Gateway
- d) Amazon CloudFront

Your Answer(s): (a)

34. Which of the following AWS services can be used to continuously monitor both malicious activities as well as unauthorized behavior to protect your AWS accounts and workloads?

- a) AWS Security Hub
- b) Amazon Detective
- c) Amazon Inspector
- d) Amazon GuardDuty
- e)

Your Answer(s): (d)

35. A media company uses Amazon Simple Storage Service (Amazon S3) for storing all its data. Which storage class should it consider for cost-optimal storage of the data that has random access patterns?

- a) Amazon S3 Intelligent-Tiering (S3 Intelligent-Tiering)
- b) Amazon S3 Standard-Infrequent Access (S3 Standard-IA)
- c) Amazon S3 Standard (S3 Standard)
- d) Amazon S3 Random Access (S3 Random-Access)

Your Answer(s): (a)

36. Which of the following are the security best practices suggested by AWS for Identity and Access Management (IAM)? **(Select TWO)**

- a) Enable AWS Multi-Factor Authentication (AWS MFA) on your AWS root user account. MFA helps give root access to multiple users without actually sharing the root user login credentials
- b) Share your AWS account root user credentials only if absolutely necessary for performing an important billing operation
- c) Do not change passwords and access keys once created. This results in failure of connectivity in the application logic
- d) Do not share security credentials between accounts, use IAM roles instead
- e) When you create IAM policies, grant the least privileges required to perform a task

Your Answer(s): (a), (e)

37. Which of the following services/tools offers a user-friendly graphical user interface to manage AWS Snowball devices without a need for command-line interface or REST APIs?

- a) AWS OpsHub
- b) AppStream 2.0
- c) AWS OpsWorks
- d) AWS Transfer Family

Your Answer(s): (a)

38. An e-commerce company has its on-premises data storage on an NFS file system that is accessed in parallel by multiple applications. The company is looking at moving the applications and data stores to AWS Cloud.

Which storage service should the company use to move their files to AWS Cloud seamlessly if the application is hosted on Amazon Elastic Compute Cloud (Amazon EC2) instances?

- a) Amazon Elastic File System (Amazon EFS)
- b) Amazon Elastic Block Store (Amazon EBS)
- c) Amazon Simple Storage Service (Amazon S3)
- d) AWS Storage Gateway

Your Answer(s): (a)

39. Which of the following points have to be considered when choosing an AWS Region for a service? **(Select TWO)**

- a) The AWS Region chosen should have all its Availability Zones (AZ) within 100 Kms radius, to keep latency low for hosted applications
- b) The AWS Region should have 5G networks, to seamlessly access the breadth of AWS services in the region
- c) Compliance and Data Residency guidelines of the AWS Region should match your business requirements
- d) AWS Region chosen should be geographically closer to the user base that utilizes the hosted AWS services

Your Answer(s): (c), (d)

40. A team manager needs data about the changes that have taken place for AWS resources in his account during the past two weeks. Which AWS service can help get this data?

- a) Amazon CloudWatch
- b) AWS Config
- c) Amazon Inspector
- d) AWS CloudTrail

Your Answer(s): (b)

41. An e-commerce company needs to generate custom reports and graphs every week for analyzing the product sales data. The company is looking at a tool/service that will help them analyze this data using interactive dashboards with minimal effort. The dashboards also need to be accessible from any device.

Which AWS tool/service will you recommend for this use-case?

- a) Amazon SageMaker
- b) AWS Glue
- c) Amazon Quicksight
- d) Amazon Athena

Your Answer(s): (c)

42. An e-learning company wants to build a knowledge graph by leveraging a fully managed database. Which of the following is the best fit for this requirement?

- a) Amazon DocumentDB
- b) Amazon Relational Database Service (Amazon RDS)
- c) Amazon DynamoDB
- d) Amazon Neptune

Your Answer(s): (d)

43. A financial services company needs to retain its data for 10 years to meet compliance norms. Which Amazon Simple Storage Service (Amazon S3) storage class is the best fit for this use case considering that the data has to be stored at a minimal cost?

- a) Amazon S3 Glacier Deep Archive
- b) Amazon S3 Glacier Flexible Retrieval
- c) Amazon S3 Standard-Infrequent Access (S3 Standard-IA)
- d) Amazon S3 Intelligent-Tiering

Your Answer(s): (a)

44. By default, which of the following events are logged by AWS CloudTrail?

- a) AWS CloudTrail Insights events
- b) Data events and Insights events
- c) Management events
- d) Data events

Your Answer(s): (c)

45. An e-commerce application sends out messages to a downstream application whenever an order is created. The downstream application processes the messages and updates its own systems. Currently, the two applications directly communicate with each other.

Which service will you use to decouple this architecture, without any communication loss between the two systems?

- a) AWS Lambda
- b) Amazon Kinesis Data Streams
- c) Amazon Simple Queue Service (SQS)
- d) Amazon Simple Notification Service (Amazon SNS)

Your Answer(s): (c)

46. Which of the following statements are true about AWS Elastic Beanstalk? **(Select TWO)**

- a) AWS Elastic Beanstalk supports Java, .NET, PHP, but does not support Docker web applications
- b) AWS Elastic Beanstalk supports web applications built on different languages. But, AWS Elastic Beanstalk cannot be used for deploying non-web applications
- c) There is no additional charge for AWS Elastic Beanstalk. You pay only for the underlying AWS resources that your application consumes
- d) AWS Elastic Beanstalk automates the details of capacity provisioning, load balancing, and application deployment, creating an environment that runs a version of your application. However, auto-scaling functionality cannot be automated using AWS Elastic Beanstalk
- e) With AWS Elastic Beanstalk, you can quickly deploy and manage applications in the AWS Cloud without having to learn about the infrastructure that runs those applications

Your Answer(s): (c), (e)

47. Which of the following represents the correct scenario where an Auto Scaling group's (ASG) predictive scaling can be effectively used to maintain the required number of AWS resources?

- a) To help configure a scaling policy to keep the average aggregate CPU utilization of your Auto Scaling group at 40 percent
- b) To help configure a CloudWatch Amazon Simple Queue Service (Amazon SQS) metric like ApproximateNumberOfMessagesVisible for scaling the group based on the value of the metric
- c) To manage a fixed number of resources in the Auto Scaling group
- d) To manage a workload that exhibits recurring load patterns that are specific to the day of the week or the time of day

Your Answer(s): (d)

48. Which of the following are NoSQL database services from AWS? **(Select TWO)**

- a) Amazon Aurora
- b) Amazon DocumentDB
- c) Amazon Relational Database Service (Amazon RDS)
- d) AWS Storage Gateway
- e) Amazon Neptune

Your Answer(s): (b), (e)

49. Which of the following AWS services are offered free of cost? **(Select TWO)**

- a) An Elastic IP address, which is chargeable as long as it is associated with an EC2 instance
- b) Amazon CloudWatch facilitated detailed monitoring of EC2 instances
- c) AWS Auto Scaling
- d) Amazon EC2 Spot Instances
- e) AWS Elastic Beanstalk

Your Answer(s): (c), (e)

50. Which of the following will help you control the incoming traffic to an Amazon EC2 instance?

- a) Security Group
- b) Network access control list (network ACL)
- c) AWS Resource Group
- d) Route Table

Your Answer(s): (a)

51. Which AWS service is used to store and commit code privately and also offer features for version control?

- a) AWS CodeBuild
- b) AWS CodeStar

- c) AWS CodePipeline
- d) AWS CodeCommit

Your Answer(s): (d)

52. A company is planning to move their traditional CRM application running on MySQL to an AWS database service. Which database service is the right fit for this requirement?

- a) Amazon Aurora
- b) Amazon DynamoDB
- c) Amazon ElastiCache
- d) Amazon Neptune

Your Answer(s): (a)

53. A company is moving its on-premises application to AWS Cloud. The application uses in-memory caches for running custom workloads. Which Amazon Elastic Compute Cloud (Amazon EC2) instance type is the right choice for the given requirement?

- a) Accelerated computing instance types
- b) Storage Optimized instance types
- c) Compute Optimized instance types
- d) Memory Optimized instance types

Your Answer(s): (d)

54. A blogging company is looking at an easy-to-use solution to host WordPress blogs. The company needs a cost-effective, readily available solution without the need to manage the configurations for servers or the databases.

Which AWS service will help you achieve this functionality?

- a) AWS Fargate
- b) Host the application directly on Amazon S3
- c) Amazon Lightsail
- d) Amazon Elastic Compute Cloud (EC2) with Amazon S3 for storage

Your Answer(s): (c)

55. A company would like to move 50 petabytes (PBs) of data from its on-premises data centers to AWS in the MOST cost-effective way. As a Cloud Practitioner, which of the following solutions would you choose?

- a) AWS Storage Gateway
- b) AWS Snowmobile
- c) AWS Snowball
- d) AWS Snowball Edge

Your Answer(s): (b)

56. A Cloud Practitioner would like to deploy identical resources across all AWS regions and accounts using templates while estimating costs. Which AWS service can assist with this task?

- a) AWS Directory Service for Microsoft Active Directory (AWS Managed Microsoft AD)
- b) Amazon LightSail
- c) AWS CloudFormation
- d) AWS CodeDeploy

Your Answer(s): (c)

57. An organization would like to copy data across different Availability Zones (AZs) using Amazon EBS snapshots. Where are Amazon EBS snapshots stored in the AWS Cloud?

- a) Amazon Simple Storage Service (Amazon S3)
- b) Amazon Relational Database Service (Amazon RDS)
- c) Amazon Elastic Compute Cloud (Amazon EC2)
- d) Amazon Elastic File System (Amazon EFS)

Your Answer(s): (a)

58. A company based in Sydney hosts its application on an Amazon Elastic Compute Cloud (Amazon EC2) instance in ap-southeast-2. They would like to deploy the same Amazon EC2 instances in eu-south-1. Which of the following AWS entities can address this use case?

- a) Elastic Load Balancing (ELB)
- b) Amazon EBS Elastic Volume snapshots
- c) AWS Lambda
- d) Amazon Machine Image (AMI)

Your Answer(s): (d)

59. A company needs to keep sensitive data in its own data center due to compliance but would still like to deploy resources using AWS. Which Cloud deployment model does this refer to?

- a) Hybrid Cloud
- b) Private Cloud
- c) On-premises
- d) Public Cloud

Your Answer(s): (a)

60. Which types of monitoring can be provided by Amazon CloudWatch? **(Select TWO)**

- a) Resource utilization
- b) API access

- c) Application performance
- d) Performance and availability of AWS services
- e) Account management

Your Answer(s): (a), (c)

61. Which of the following services are provided by Amazon Route 53? **(Select TWO)**

- a) Health checks and monitoring
- b) IP routing
- c) Domain registration
- d) Load balancing
- e) Transfer acceleration

Your Answer(s): (a), (c)

62. A company using a hybrid cloud would like to store secondary backup copies of the on-premises data. Which Amazon S3 Storage Class would you use for a cost-optimal yet rapid access solution?

- a) Amazon S3 Glacier Deep Archive
- b) Amazon S3 One Zone-Infrequent Access (S3 One Zone-IA)
- c) Amazon S3 Standard
- d) Amazon S3 Standard-Infrequent Access (S3 Standard-IA)

Your Answer(s): (b)

63. A company would like to optimize Amazon Elastic Compute Cloud (Amazon EC2) costs. Which of the following actions can help with this task? **(Select TWO)**

- a) Vertically scale the EC2 instances
- b) Set up Auto Scaling groups to align the number of instances with the demand
- c) Build its own servers
- d) Opt for a higher AWS Support plan

e) Purchase Amazon EC2 Reserved instances (RIs)

Your Answer(s): (b), (e)

64. Adding more CPU/RAM to an Amazon Elastic Compute Cloud (Amazon EC2) instance represents which of the following?

- a) Horizontal scaling
- b) Loose coupling
- c) Managing increasing volumes of data
- d) Vertical scaling

Your Answer(s): (d)

65. The IT infrastructure at a university is deployed on AWS Cloud and it's experiencing a read-intensive workload. As a Cloud Practitioner, which AWS service would you use to take the load off databases?

- a) AWS Glue
- b) Amazon Relational Database Service (Amazon RDS)
- c) Amazon EMR
- d) Amazon ElastiCache

Your Answer(s): (d)