Review Questions

1. Which of the following statements regarding S3 storage classes is true?

   A. The availability of S3 and S3-IA is the same.

   B. The durability of S3 and S3-IA is the same.

   C. The latency of S3 and Glacier is the same.

   D. The latency of S3 is greater than that of Glacier.

2. A small business specializing in video processing wants to prototype cloud storage in order to lower its costs. However, management is wary of storing its client files in the cloud rather than on premises. They are focused on cost savings and experimenting with the cloud at this time. What is the best solution for their prototype?

   A. Install a VPN, set up an S3 bucket for their files created within the last month, and set up an additional S3-IA bucket for older files. Create a lifecycle policy in S3 to move files older than 30 days into the S3-IA bucket nightly.

   B. Install an AWS storage gateway using stored volumes.

   C. Set up a Direct Connect and back all local hard drives up to S3 over the Direct Connect nightly.

   D. Install an AWS storage gateway using cached volumes.

3. You have a group of web designers who frequently upload large zip files of images to S3, often in excess of 5 GB. Recently, team members have reported that they are receiving the error "Your proposed upload exceeds the maximum allowed object size." What action should you take to resolve the upload problems?

   A. Increase the maximum allowed object size in the target S3 bucket used by the web designers.

   B. Ensure that your web designers are using applications or clients that take advantage of the Multipart Upload API for all uploaded objects.

   C. Contact AWS and submit a ticket to have your default S3 bucket size raised; ensure that this is also applied to the target bucket for your web designers' uploads.

   D. Log in to the AWS console, select the S3 service, and locate your bucket. Edit the bucket properties and increase the maximum object size to 50 GB.

4. For which of the following HTTP methods does S3 have eventual consistency? (Choose two.)

   A. PUTs of new objects

   B. UPDATEs

   C. DELETEs

   D. PUTs that overwrite existing objects

5. What is the smallest file size that can be stored on standard class S3?

   A. 1 byte

   B. 1 MB

   C. 0 bytes

   D. 1 KB

6. You've just created a new S3 bucket named ytmProfilePictures in the US East 2 region. You need the URL of the bucket for some programmatic access. What is the correct bucket URL?

   A. `https://s3-us-east-2.amazonaws.com/ytmProfilePictures`

   B. `https://s3-east-2.amazonaws.com/ytmProfilePictures`

   C. `https://s3-us-east-2-ytmProfilePictures.amazonaws.com/`

   D. `https://amazonaws.s3-us-east-2.com/ytmProfilePictures`

7. You've just created a new S3 bucket named ytmProfilePictures in the US East 2 region and created a folder at the root level of the bucket called `images/`. You've turned on website hosting and asked your content team to upload images into the `images/` folder. At what URL will these images be available through a web browser?

   A. `https://s3-us-east-2.amazonaws.com/ytmProfilePictures/images`

   B. `https://s3-website-us-east-2.amazonaws.com/ytmProfilePictures/images`

   C. `https://ytmProfilePictures.s3-website-us-east-2.amazonaws.com/images`

   D. `https://ytmProfilePictures.s3-website.us-east-2.amazonaws.com/images`

8. Which of the following statements is true?

   A. The durability of S3 and S3-IA is the same.

   B. The availability of S3 and S3-IA is the same.

   C. The durability of S3 is greater than that of Glacier.

   D. The durability of S3 is greater than that of S3-IA.

9. Which of the following statements is not true?

   A. Standard S3, S3-IA, and S3 One Zone-IA all are equally durable.

   B. The availability of S3-IA and S3 One Zone-IA are identical.

   C. Standard S3, S3-IA, and S3 One Zone-IA all have different availabilities.

   D. S3 One Zone-IA is as durable as standard S3.

10. Which of the following AWS services appear in the AWS console across all regions? (Choose two.)

   A. S3

   B. EC2

   C. IAM

   D. RDS

11. Amazon's EBS volumes are _____. (Choose two.)

 A. Block-based storage

 B. Object-based storage

 C. Based on magnetic disk by default

 D. Available in a variety of SSD and magnetic options

12. You have spent several days of your last DevOps sprint building an AMI upon which all instances of your development team's application should reside. The application will be deployed into multiple regions and interact with multiple S3 buckets, and you now need the new AMI in us-east-2 and us-west-2, in addition to us-east-1, where you created the AMI. How can you make the new AMI available in us-east-2 and us-west-2?

 A. Copy the AMI from us-east-1 to us-east-2 and us-west-2. Launch the new instances using the copied AMI.

 B. Ensure that all application instances share a security group. AMIs are available to all instances within a security group, regardless of the region in which the AMI was created.

 C. You can immediately launch the AMI, as all AMIs appear in all regions through the AWS console.

 D. Copy the AMI from us-east-1 to us-east-2 and us-west-2. Apply launch permissions and S3 bucket permissions and then launch new instances using the updated AMI.

13. You have an S3 bucket and are working on cost estimates for your customer. She has asked you about pricing of objects stored in S3. There are currently objects in the buckets ranging from 0 bytes to over 1 GB. In this situation, what is the smallest file size that S3-IA will charge you for?

 A. 1 byte

 B. 1 MB

 C. 0 bytes

 D. 128 KB

14. You have been tasked with ensuring that data stored in your organization's RDS instance exists in *a minimum* of two geographically distributed locations. Which of the following solutions are valid approaches? (Choose two.)

 A. Enable RDS in a Multi-AZ configuration.

 B. Enable RDS in a read replica configuration.

 C. Install a storage gateway with stored volumes.

 D. Enable RDS in a cross-region read replica configuration.

15. Which of the following items are included in an Auto Scaling Launch Configuration? (Choose two.)

 A. The AMI to use for creating new instances

 B. The EBS storage volume for the instances to create

 C. The polling time for monitoring network latency

 D. The IAM role to associate with created instances

16. Which of the following would you use for setting up AMIs from which new instances are created in an Auto Scaling policy?

  A. The Auto Scaling policy itself

  B. The security group for the Auto Scaling policy

  C. The Auto Scaling group used by the Auto Scaling policy

  D. The launch configuration used by the Auto Scaling policy

17. You terminate an EC2 instance and find that the EBS root volume that was attached to the instance was also deleted. How can you correct this?

  A. You can't. A root volume is always deleted when the EC2 instance attached to that volume is deleted.

  B. Take a snapshot of the EBS volume while the EC2 instance is running. Then, when the EC2 instance is terminated, you can restore the EBS volume from the snapshot.

  C. Remove termination protection from the EC2 instance.

  D. Use the AWS CLS to change the DeleteOnTermination attribute for the EBS volume to "false."

18. In what manner are EBS snapshots backed up to S3?

  A. Via full backup according to the backup policy set on the volume

  B. Incrementally

  C. Synchronously

  D. EBS volumes are not stored on S3.

19. Can you attach an EBS volume to more than one EC2 instance at the same time?

  A. Yes, as long as the volume is not the root volume.

  B. No, EBS volumes cannot be attached to more than one instance at the same time.

  C. Yes, as long as the volume is one of the SSD classes and not magnetic storage.

  D. Yes, as long as at least one of the instances uses the volume as its root volume.

20. How does AWS allow you to add metadata to your EC2 instances? (Choose two.)

  A. Certificates

  B. Tags

  C. Policies

  D. Labels

21. Which of the following are valid criteria for determining which region to choose for your S3 buckets? (Choose two.)

  A. The distance between the region and your user base

  B. The distance between the region and your on-premises operations

  C. The distance between the region and other regions in your AWS account

  D. The distance between the region and your development team

22. Where are individual EC2 instances provisioned?

    A. In a specific region

    B. In a specific availability zone

    C. In a random availability zone within a specified region

    D. It depends upon the region.

23. Which of the following can be deployed across availability zones?

    A. Cluster placement groups

    B. Placement groups

    C. Spread placement groups

    D. Cross-region placement groups

24. Which of the following services is used at an on-premises site to build a site-to-site VPN connection?

    A. Storage gateway

    B. Virtual private gateway

    C. Customer gateway

    D. Virtual private network

25. What is the anchor on the AWS side of a site-to-site VPN connection between an on-premises site and AWS?

    A. IPSec tunnel

    B. Virtual private gateway

    C. Customer gateway

    D. VPC

26. How many tunnels for network traffic are involved when a customer gateway connects to an AWS VPC via an AWS-managed VPN connection?

    A. One

    B. Two

    C. Three

    D. It depends on the settings in the AWS VPC.

27. Choose the correct order in which traffic flows from an on-premises site to a VPC within AWS when a VPN connection is used.

    A. Customer gateway to Amazon VPC to virtual private gateway

    B. Virtual private gateway to customer gateway to Amazon VPC

    C. Amazon VPC to customer gateway to virtual private gateway

    D. Customer gateway to virtual private gateway to Amazon VPC

28. You are setting up a site-to-site VPN from an on-premises network into an AWS VPC. Which of the following are steps you may need to perform? (Choose two.)

 A. Set up a public IP address for the customer gateway.

 B. Set up a public IP address for the AWS VPC.

 C. Set up a public IP address for the virtual private gateway.

 D. Set up a public IP address for the VPN tunnels.

29. Which of the following services is used at an on-premises site to connect to cloud-based storage?

 A. Storage gateway

 B. Virtual private gateway

 C. Customer gateway

 D. Virtual private network

30. Which of the following are valid options for storage gateways? (Choose two.)

 A. File gateway

 B. Volume gateway

 C. Cached gateway

 D. Virtual private gateway

31. You are tasked with recommending a storage solution for a large company with a capital investment in an NFS-based backup system. The company wants to investigate cloud-based storage but doesn't want to lose its software investment either. Which type of storage gateway would you recommend?

 A. File gateway

 B. Cached volume gateway

 C. Stored volume gateway

 D. Tape gateway

32. You are helping a medium-sized business migrate its large datasets to the cloud. However, the business has limited resources and has long used a tape backup system. It does not want to lose the investment in the software and systems that already have been configured to use this backup system. Which storage gateway would you recommend?

 A. File gateway

 B. Cached volume gateway

 C. Stored volume gateway

 D. Tape gateway

33. You are tasked with prototyping a cloud-based storage solution for a small business. The business's chief concern is low network latency, as its systems need near-instant access to all of its datasets. Which storage gateway would you recommend?

    A. File gateway

    B. Cached volume gateway

    C. Stored volume gateway

    D. Tape gateway

34. You are the solutions architect for a mapping division that has inherited a massive geospatial dataset from a recent acquisition. The data is all on local disk drives, and you want to transition the data to AWS. With datasets of over 10 TB, what is the best approach to getting this data into AWS?

    A. S3 with Transfer Acceleration

    B. Cached volume gateway

    C. Snowball

    D. Shipping the drives to AWS

35. Which of the following are not reasons to use a cached volumes storage gateway? (Choose two.)

    A. You want low-latency access to your entire dataset.

    B. You want to reduce the cost of on-site storage.

    C. You want to support iSCSI storage volumes.

    D. You want low-latency access to your most commonly accessed data.

36. Which of the following storage gateway options is best for traditional backup applications?

    A. File gateway

    B. Cached volume gateway

    C. Stored volume gateway

    D. Tape gateway

37. Which of the following storage gateway options is best for applications where latency of specific portions of your entire dataset is the priority?

    A. File gateway

    B. Cached volume gateway

    C. Stored volume gateway

    D. Tape gateway

38. Which of the following storage gateway options is best for applications where latency of your entire dataset is the priority?

    A. File gateway

    B. Cached volume gateway

    C. Stored volume gateway

    D. Tape gateway

39. Which of the following storage gateway options is best for reducing the costs associated with an off-site disaster recovery solution?

   A. File gateway

   B. Cached volume gateway

   C. Stored volume gateway

   D. Tape gateway

40. Which of the following storage classes is optimized for long-term data storage at the expense of retrieval time?

   A. S3

   B. S3-IA

   C. S3 One Zone-IA

   D. Glacier

41. Which of the following need to be considered across all regions in your account? (Choose two.)

   A. Launch configurations

   B. IAM users

   C. EC2 instances

   D. S3 bucket names

42. What HTTP code would you expect after a successful upload of an object to an S3 bucket?

   A. HTTP 200

   B. HTTP 307

   C. HTTP 404

   D. HTTP 501

43. What is the durability of S3 One Zone-IA?

   A. 99.0%

   B. 99.9%

   C. 99.99%

   D. 99.999999999%

44. What is the durability of S3-IA?

   A. 99.0%

   B. 99.9%

   C. 99.99%

   D. 99.999999999%

45. What is the durability of S3?

   A. 99.0%

   B. 99.9%

   C. 99.99%

   D. 99.999999999%

46. What is the availability of S3 One Zone-IA?

   A. 99.5%

   B. 99.9%

   C. 99.99%

   D. 99.999999999%

47. What is the availability of S3-IA?

   A. 99.5%

   B. 99.9%

   C. 99.99%

   D. 99.999999999%

48. What is the availability of S3?

   A. 99.5%

   B. 99.9%

   C. 99.99%

   D. 99.999999999%

49. Which S3 storage class supports SSL for data in transit?

   A. S3

   B. S3-IA

   C. S3 One Zone-IA

   D. All of the above

50. Which S3 storage class supports encryption for data at rest?

   A. S3

   B. S3-IA

   C. S3 One Zone-IA

   D. All of the above

51. For which of the following storage classes do you need to specify a region?

   A. S3

   B. S3-IA

   C. S3 One Zone-IA

   D. All of the above

52. For which of the following storage classes do you need to specify an availability zone?

   A. S3

   B. S3-IA

   C. S3 One Zone-IA

   D. None of the above

53. How does S3 store your objects?

   A. As key-value pairs

   B. As relational entries.

   C. Using a NoSQL interface

   D. As blocks in a block storage

54. In what ways can you access your data stored in S3 buckets? (Choose two.)

   A. Through FTP access to the bucket

   B. Through SFTP access to the bucket

   C. Through a REST-based web service interface

   D. Through the AWS console

55. Which of the following are true about S3 data access when traffic spikes (increases)? (Choose two.)

   A. S3 will scale to handle the load if you have Auto Scaling set up.

   B. S3 will scale automatically to ensure your service is not interrupted.

   C. Scale spreads evenly across AWS network to minimize the effect of a spike.

   D. A few instances are scaled up dramatically to minimize the effect of the spike.

56. You have been tasked with helping a company migrate its expensive off-premises storage to AWS. It will still primarily back up files from its on-premises location to a local NAS. These files then need to be stored off-site (in AWS rather than the original off-site location). The company is concerned with durability and cost and wants to retain quick access to its files. What should you recommend?

   A. Copying files from the NAS to an S3 standard class bucket

   B. Copying files from the NAS to an S3 One Zone-IA class bucket

   C. Copying the files from the NAS to EBS volumes with provisioned IOPS

   D. Copying the files from the NAS to Amazon Glacier

57. Which S3 storage class would you recommend if you were building out storage for an application that you anticipated growing in size exponentially over the next 12 months?

   A. Amazon Glacier

   B. S3 standard

   C. S3-IA

   D. There is not enough information to make a good decision.

58. How many S3 buckets can you create per AWS account, by default?

    A. 25

    B. 50

    C. 100

    D. There is not a default limit.

59. How are objects uploaded to S3 by default?

    A. In parts

    B. In a single operation

    C. You must configure this option for each S3 bucket explicitly.

    D. Via the REST API

60. When does AWS suggest you start uploading objects via the Multipart Upload API?

    A. When you're uploading a lot of files at once

    B. When you're uploading files of 10 GB or more

    C. When you have multiple applications uploading files to the same S3 bucket

    D. When you need the greatest network throughput for uploads

61. Which of the following are the ways you should consider using Multipart Upload?

    A. For uploading large objects over a stable high-bandwidth network to maximize bandwidth

    B. For uploading large objects to reduce the cost of ingress related to those objects

    C. For uploading any size files over a spotty network to increase resiliency

    D. For uploading files that must be appended to existing files

62. How is a presigned URL different from a normal URL? (Choose two.)

    A. A presigned URL has permissions associated with certain objects provided by the creator of the URL.

    B. A presigned URL has permissions associated with certain objects provided by the user of the URL.

    C. A presigned URL allows access to private S3 buckets without requiring AWS credentials.

    D. A presigned URL includes encrypted credentials as part of the URL.

63. Which of the following can be put behind a presigned URL?

    A. An S3 object store

    B. An EC2 instance with a web interface

    C. An AWS CloudFront distribution

    D. All of the above

64. How long is a presigned URL valid?

   A. 60 seconds

   B. 60 minutes

   C. 24 hours

   D. As long as it is configured to last

65. Which of the following HTTP methods with regard to S3 have eventual consistency? (Choose two.)

   A. UPDATEs

   B. DELETEs

   C. PUTs of new objects

   D. Overwrite PUTs

66. Which of the following behaviors is consistent with how S3 handles object operations on a bucket?

   A. A process writes a new object to Amazon S3 and immediately lists keys within its bucket. The new object does not appear in the list of keys.

   B. A process deletes an object, attempts to immediately read the deleted object, and S3 still returns the deleted data.

   C. A process deletes an object and immediately lists the keys in the bucket. S3 returns a list with the deleted object in the list.

   D. All of the above

67. In which regions does Amazon S3 offer eventual consistency for overwrite PUTs and DELETEs?

   A. All US regions

   B. All US and EU regions

   C. All regions

   D. No regions, eventual consistency is not the model for overwrite PUTs.

68. Which of the following storage media are object based? (Choose two.)

   A. S3-IA

   B. EBS

   C. EFS

   D. S3 standard

69. EBS stands for what?

   A. Elastic Based Storage

   B. Elastic Block Storage

   C. Extra Block Storage

   D. Ephemeral Block Storage

70. What is the consistency model in S3 for PUTs of new objects?

- **A.** Write after read consistency
- **B.** Read after write consistency
- **C.** Eventual consistency
- **D.** Synchronous consistency

71. How many PUTs per second does S3 support?

- **A.** 100
- **B.** 1500
- **C.** 3500
- **D.** 5000

72. You have been asked to create a new S3 bucket with the name prototypeBucket32 in the US West region. What would the URL for this bucket be?

- **A.** `https://s3-us-east-1.amazonaws.com/prototypeBucket32`
- **B.** `https://s3-us-west-1.amazonaws.com/prototypeBucket32`
- **C.** `https://s3.prototypeBucket32-us-east-1.amazonaws.com/`
- **D.** `https://s3-prototypeBucket32.us-east-1.amazonaws.com/`

73. What unique domain name do S3 buckets created in US East (N. Virginia) have, as compared to other regions?

- **A.** s3.amazonaws.com
- **B.** s3-us-east-1.amazonaws.com
- **C.** s3-us-east.amazonaws.com
- **D.** s3-amazonaws.com

74. Which of the following are valid domain names for S3 buckets? (Choose two.)

- **A.** s3.us-east-1.amazonaws.com
- **B.** s3-us-west-2.amazonaws.com
- **C.** s3.amazonaws.com
- **D.** s3-jp-west-2.amazonaws.com

75. What are the two styles of URLs that AWS supports for S3 bucket access? (Choose two.)

- **A.** Virtual-hosted-style URLs
- **B.** Domain-hosted-style URLs
- **C.** Apex zone record URLs
- **D.** Path-style URLs

76. Which of the following are valid URLs for accessing S3 buckets? (Choose two.)

   A. `https://s3-us-west-1-prototypeBucket32.amazonaws.com/`

   B. `https://s3-us-west-1.amazonaws.com/prototypeBucket32`

   C. `https://s3-mx-central-1.amazonaws.com/prototypeBucket32`

   D. `https://prototypeBucket32.s3-us-west-1.amazonaws.com`

77. What is an AWS storage gateway?

   A. A device to reside at a customer site that is part of a VPN connection between an on-premises site and AWS

   B. A device that enables an on-premises site to upload files to S3 faster than over the public Internet

   C. A device to facilitate large data migrations into S3

   D. A device that can be used to cache S3-stored objects at an on-premises site

78. Which of the following statements is not true about an AWS storage gateway?

   A. It is a virtual appliance.

   B. It is available as both a physical and virtual appliance.

   C. It caches data locally at a customer site.

   D. It interacts with S3 buckets.

79. Which of the following are not true about S3? (Choose two.)

   A. Buckets are created in specific regions.

   B. Bucket names exist in a per-region namespace.

   C. Buckets are object-based.

   D. Each S3 bucket stores up to 5 TB of object data.

80. Which of the following consistency models are supported by S3? (Choose two.)

   A. Read after write consistency

   B. Synchronous consistency

   C. Write after read consistency

   D. Eventual consistency

81. Every object in S3 has a ――――――――. (Choose two.)

   A. Key

   B. Value

   C. Both A and B

   D. Version ID

82. Which of the following is the best approach to ensuring that objects in your S3 buckets are not accidentally deleted?

    A. Restrictive bucket permissions

    B. Enabling versioning on buckets

    C. Enabling MFA Delete on buckets

    D. All of these options are equally useful.

83. What HTTP request header is used by MFA Delete requests?

    A. x-delete

    B. x-amz-mfa

    C. x-aws-mfa

    D. x-amz-delete

84. Which of the following operations will take advantage of MFA Delete, if it is enabled? (Choose two.)

    A. Deleting an S3 bucket

    B. Changing the versioning state of a bucket

    C. Permanently deleting an object version

    D. Deleting an object's metadata

85. When using an MFA Delete–enabled bucket to delete an object, from where does the authentication code come?

    A. A hardware or virtual MFA device

    B. The token section of the AWS console

    C. The AWS REST API under delete-codes in a bucket's metadata

    D. None of these

86. Who can enable MFA Delete on an S3 bucket?

    A. All authorized IAM users of the bucket

    B. All authorized IAM users that can update the bucket

    C. The bucket owner

    D. The root account that owns the bucket

87. Who can enable versioning on an S3 bucket?

    A. All authorized IAM users of the bucket

    B. A, C, and D

    C. The bucket owner

    D. The root account that owns the bucket

88. Which of the following exist and are attached to an object stored in S3? (Choose two.)

   A. Metadata

   B. Data

   C. Authentication ID

   D. Version history

89. Which of the following is the AWS mechanism for adding object metadata using the AWS console?

   A. Labels

   B. Tags

   C. Metadata

   D. Object name

90. Which of the following is the exception to S3 storing all versions of an object?

   A. When an object is deleted via MFA Delete

   B. When all of the versions of an object are deleted

   C. When an object's current version is deleted

   D. There are no exceptions.

91. You have an S3 bucket with versioning enabled. How can you turn off versioning?

   A. Update the bucket properties in the AWS console and turn off versioning.

   B. Versioning can only be turned off through the AWS CLI or API. Use your application keys to change versioning to "off" on the bucket.

   C. Send a message to the S3 bucket using the HTML request header x-amz-versioning and the value of "off."

   D. You can't turn off versioning once it has been enabled.

92. CloudFront is a web service for distributing what type of content? (Choose two.)

   A. Object-based storage

   B. Static files

   C. Script-generated or programmatically generated dynamic content

   D. All of the above

93. What are the sources of information that CloudFront serves data from called?

   A. Service providers

   B. Source servers

   C. Static servers

   D. Origin servers

94. Which of the following are typical origin servers for a CloudFront distribution? (Choose two.)

    A. EC2 instances

    B. Amazon Glacier archives

    C. API Gateway

    D. S3 buckets

95. Which of the following are not origin servers for a CloudFront distribution? (Choose two.)

    A. Docker containers running on ECS

    B. MySQL ResultSet

    C. S3 buckets

    D. Redshift workloads

96. What is the location where content will be cached in a CloudFront distribution called?

    A. Availability zone

    B. Edge location

    C. Remote location

    D. Origin edge

97. Which of the following are not origin servers for a CloudFront distribution? (Choose two.)

    A. Elastic load balancer

    B. Route 53 recordsets

    C. SQS subscription endpoint

    D. SNS topic retrieval endpoint

98. What is a collection of edge locations called?

    A. Region

    B. Availability zone

    C. CloudFront

    D. Distribution

99. Rank the total number of regions, availability zones, and edge locations in order from the least number to the greatest number.

    A. Availability zones < regions < edge locations

    B. Regions < availability zones < edge locations

    C. Edge locations < regions < availability zones

    D. Edge locations < availability zones < regions

100. Which of the following statements are true? (Choose two.)

    A. There are more edge locations than availability zones.

    B. There are fewer regions than edge locations.

    C. There are fewer edge locations than availability zones.

    D. Each availability zone has a corresponding edge location.

101. Which of the following store content that is served to users in a CloudFront-enabled web application? (Choose two.)

    A. Availability zones

    B. Edge locations

    C. Route 53

    D. EC2 instances

102. Which of the following are true about edge locations? (Choose two.)

    A. Edge locations are readable.

    B. Edge locations are read-only.

    C. Edge locations are write-only.

    D. Edge locations are writable.

103. To which of the following can objects be written? (Choose two.)

    A. Edge locations

    B. EC2 instances

    C. S3 buckets

    D. Availability zones

104. What does TTL stand for?

    A. Time to Live

    B. Total Time to Live

    C. Total traffic life

    D. Traffic total life

105. You support a web application that uses a CloudFront distribution. A banner ad that was posted the previous night at midnight has an error in it, and you've been tasked with removing the ad so that users don't see the error. What steps should you take? (Choose two.)

    A. Delete the banner image from S3.

    B. Remove the ad from the website.

    C. Wait for 24 hours and the edge locations will automatically expire the ad from their caches.

    D. Clear the cached object manually.

106. By default, how long do edge locations cache objects?

    A. 12 hours

    B. 24 hours

    C. 48 hours

    D. 360 minutes

107. What is the default visibility of a newly created S3 bucket?

    A. Public

    B. Private

    C. Public to registered IAM users of your account

    D. None of the above

108. Which of the following are valid ways to set up access to your buckets? (Choose two.)

    A. NACLs

    B. ACLs

    C. Bucket policies

    D. JSON

109. Which of the following languages is used for writing bucket policies?

    A. XML

    B. YAML

    C. JSON

    D. AML

110. How are datasets utilized by stored volumes backed up to S3?

    A. Asynchronously

    B. Synchronously

    C. The backup method is specified by the user at configuration time.

    D. Synchronously unless the backup takes more than 2 seconds; then the backup switches to asynchronous

111. Which of the following is equivalent to a tape volume?

    A. VTL

    B. VPC

    C. NetBackup

    D. VPN

112. What is Amazon's petabyte-scale data transport solution?

    A. Snowball

    B. Glacier

    C. Transfer Acceleration

    D. Edge transport

113. What language(s) are supported by Snowball?

    A. Perl, PHP

    B. JSON, YAML

    C. CloudFormation

    D. None of these

114. When should you use AWS Direct Connect instead of Snowball?

    A. AWS Direct Connect is usually a better option than Snowball.

    B. AWS Direct Connect is almost never a better option than Snowball.

    C. If you have more than 50 TB of data to transfer, use Snowball.

    D. If you have less than 50 TB of data to transfer, use Snowball.

115. What is the difference between Snowball and Snowball Edge?

    A. Snowball is for data transfer; Snowball Edge provides local data processing prior to returning the data to AWS.

    B. Snowball Edge is for data transfer; Snowball provides local data processing prior to returning the data to AWS.

    C. Snowball and Snowball Edge are both for data transfer, but Snowball Edge offers caching when the data arrives at AWS.

    D. Snowball and Snowball Edge are both for data transfer, but Snowball Edge offers additional storage capacity.

116. Which of the following can Snowball do?

    A. Import data into S3 (but not export data)

    B. Export data from S3 (but not import data)

    C. Import data into S3 and export data from S3

    D. Snowball can import data into S3, but only Snowball Edge can export data from S3.

117. What is the main benefit of decoupling an application?

    A. To enforce different security models

    B. To enforce different network transport models

    C. To reduce interdependencies to isolate failures from an entire application

    D. To reduce network connections to improve performance

118. Which of the following AWS services provides analytic data warehouse provisioning and tooling?

    A. Aurora

    B. ElastiCache

    C. DynamoDB

    D. Redshift

119. Which of the following is a basic principle of fault tolerance in AWS?

    A. Launch instances in separate VPCs.

    B. Launch instances in separate regions.

    C. Launch instances in separate subnets.

    D. Launch instances in edge locations.

120. Which of the following services use AWS edge locations?

    A. CloudFront

    B. Customer gateway

    C. Storage gateway

    D. Snowball

121. Which of the following is a benefit of running an application in two availability zones?

    A. It is more secure than running an application in a single availability zone.

    B. It is more performant than running an application in a single availability zone.

    C. It increases the fault tolerance of running an application in a single availability zone.

    D. It decreases the network latency of running an application in a single availability zone.

122. Which of the following AWS services can be used to store files? (Choose two.)

    A. Amazon Athena

    B. S3

    C. MySQL

    D. EBS

123. Which of the following AWS services can be used to store large objects? (Choose two.)

    A. Redshift

    B. S3

    C. Oracle

    D. EC2

124. How would you speed up transfers of data to S3?

    A. Use Snowball to transfer large files more quickly.

    B. Enable S3 Transfer Acceleration.

    C. Configure AWS to use multiple network paths to your S3 bucket.

    D. Configure AWS to use an internet gateway for routing traffic to your S3 buckets.

125. What users would benefit most from S3 Transfer Acceleration?

    A. Users geographically closest to your S3 buckets

    B. Users geographically farthest from your S3 buckets

    C. Users taking advantage of HTTPS for uploads

    D. All users equally benefit.

126. Which of the following are good reasons to use S3 Transfer Acceleration? (Choose two.)

    A. You have customers that upload to your buckets from around the world.

    B. You have customers complaining about performance of your applications.

    C. You transfer gigabytes of data on a regular basis across continents.

    D. You are seeing network latency in uploads to your S3 buckets.

127. Which services can you use to host websites? (Choose two.)

    A. EC2

    B. Elastic Load Balancing

    C. S3

    D. Glacier

128. You have a bucket called newyorkhotdogs in US West 1. You have enabled static website hosting on this bucket and want to provide its URL to beta customers. What URL should you provide?

    A. `http://newyorkhotdogs.s3-website.us-west-1.amazonaws.com`

    B. `https://s3-us-west-1.amazonaws.com/newyorkhotdogs`

    C. `http://newyorkhotdogs.s3-website-us-west-1.amazonaws.com`

    D. `http://newyorkhotdogs.s3-website.us-east-1.amazonaws.com`

129. You have created a static website and posted an HTML page as home.html in the root level of your S3 bucket. The bucket is named californiaroll and is located in US West 2. At what URL can you access the HTML page?

    A. `http://californiaroll.s3-website.us-west-1.amazonaws.com/home.html`

    B. `http://s3-website-us-west-1.amazonaws.com/californiaroll/home.html`

    C. `http://californiaroll.s3-website-us-west-2.amazonaws.com/public_html/home.html`

    D. `http://californiaroll.s3-website-us-west-1.amazonaws.com/home.html`

130. You have a variety of images with names like `image-001.jpg` and `image-002.jpg` in an S3 bucket named phoneboothPhotos created in the EU West 1 region. You have enabled website hosting on this bucket. Which URL would allow access to the photos?

    A. `http://phoneboothPhotos.s3-website-eu-west-1.amazonaws.com/phoneboothPhotos/image-001.jpg`

    B. `http://phoneboothPhotos.s3-website-eu-west-1.amazonaws.com/phoneboothphotos/image-001.jpg`

    C. `http://phoneboothPhotos.s3-website-eu-west-1.amazonaws.com/public_html/phoneboothPhotos/image-001.jpg`

    D. `http://phoneboothPhotos.s3-website.eu-west-1.amazonaws.com/phoneboothPhotos/image-001.jpg`

131. You have your own custom domain and want to host a static website on that domain. You also want to minimize compute costs. Which of the following AWS services would you use to host your website on your custom domain? (Choose two.)

    A. S3

    B. EC2

    C. Lambda

    D. Route 53

132. You have your own custom domain and want to host a dynamic website on that domain. You also want to minimize compute costs. Which of the following AWS services would you use to host your website on your custom domain? (Choose two.)

    A. S3

    B. EC2

    C. Lambda

    D. Route 53

133. Which of the following provide capability for serverless websites? (Choose two.)

    A. S3

    B. EC2

    C. Lambda

    D. Route 53

134. Which of the following provide capability for dynamic websites? (Choose two.)

    A. S3

    B. EC2

    C. Lambda

    D. Route 53

135. Which of the following does Elastic Beanstalk provide? (Choose two.)

    A. Deployment of code

    B. Security

    C. Capacity provisioning

    D. Cost optimization

136. Which of the following does Elastic Beanstalk not provide? (Choose two.)

    A. Deployment of code

    B. Security hardening

    C. Application health monitoring

    D. Log inspection and backup

137. Which of the following does Elastic Beanstalk support? (Choose two.)

   A. Docker

   B. C++

   C. Scala

   D. Node.js

138. Which of the following application types does Elastic Beanstalk support?

   A. Node.js

   B. Java

   C. Python

   D. All of the above

139. Which of the following database technologies does Elastic Beanstalk support? (Choose two.)

   A. All AWS-supported RDS options

   B. DynamoDB

   C. Oracle running on EC2

   D. Redshift

140. How do you convert application code managed by Elastic Beanstalk from test to production?

   A. Update the codebase to use a production-driven CloudFormation file.

   B. Update the database connection string in your application code.

   C. Set the Elastic Beanstalk environment to use your production database in that particular environment's Elastic Beanstalk configuration.

   D. You cannot deploy to production using Elastic Beanstalk.

141. Which AWS service allows you to run code without provisioning any of the underlying resources required by that code?

   A. EC2

   B. ECS

   C. DynamoDB

   D. Lambda

142. Which of the following AWS services allow you to run code without worrying about provisioning specific resources for that code? (Choose two.)

   A. Elastic Beanstalk

   B. ECS

   C. DynamoDB

   D. Lambda

143. Do Lambda functions run on servers?

    A. Yes, they automatically spin up an EC2 instance as needed without user intervention.

    B. Yes, you must provide an existing EC2 instance to run on.

    C. No, Lambda code runs purely in the cloud without a server involved.

    D. No, Lambda code runs in a container.

144. Which of the following languages work on Lambda? (Choose two.)

    A. JavaScript

    B. Node.js

    C. Scala

    D. C++

145. Which of the following are reasons to use Lambda versus EC2? (Choose two.)

    A. You need to install Oracle and want to avoid compute costs.

    B. Your code primarily responds to events from other AWS services.

    C. Your primary concern is scaling.

    D. You want to deploy your own Docker containers.

146. What AWS service converts media files to formats suitable for different sized devices?

    A. Elastic Transcoder

    B. SWF

    C. Lightsail

    D. Elastic Beanstalk

147. What AWS service is ideal for gathering business intelligence from multiple data sources?

    A. Lightsail

    B. QuickSight

    C. CloudTrail

    D. RDS

148. What is AWS's system for sending out alerts and alarms based on specific events in an environment?

    A. SQS

    B. SNS

    C. SWF

    D. CloudTrail

149. Which service would you use to create a single-sign on system for a user base that already has credentials they want to use outside of AWS?

    A. Cognito

    B. Kinesis

    C. SWF

    D. IAM

150. What does an AWS region consist of?

    A. A collection of virtual data centers spread across a continent

    B. A collection of virtual data centers spread across a specific geographic area

    C. A collection of virtual servers spread across a continent

    D. A collection of virtual databases spread across a specific geographic area

151. What type of services are associated with an AWS VPC?

    A. Storage services

    B. Database services

    C. Compute services

    D. Networking services

152. What type of services are associated with ECS?

    A. Storage services

    B. Database services

    C. Compute services

    D. Networking services

153. What type of services are associated with RDS?

    A. Storage services

    B. Database services

    C. Compute services

    D. Networking services

154. What type of services are associated with Route 53?

    A. Storage services

    B. Database services

    C. Compute services

    D. Networking services

155. What type of services are associated with a customer gateway?

    A. Storage services

    B. Database services

    C. Compute services

    D. Networking services

156. What type of services are associated with S3 lifecycle management?

    A. Storage services

    B. Database services

    C. Compute services

    D. Networking services

157. What type of services are associated with Amazon Lightsail?

    A. Storage services

    B. Networking services

    C. Compute services

    D. All of the above

158. What type of services are associated with Elastic Beanstalk?

    A. Storage services

    B. Networking services

    C. Compute services

    D. All of the above

159. What type of services are associated with EFS?

    A. Storage services

    B. Networking services

    C. Compute services

    D. All of the above

160. What type of services are associated with Redshift?

    A. Storage services

    B. Networking services

    C. Database services

    D. All of the above

161. What type of services are associated with CloudFront?

    A. Storage services

    B. Networking services

    C. Compute services

    D. Both B and C

162. What type of services are associated with Amazon Athena?

    A. Storage services

    B. Networking services

    C. Compute services

    D. Analytic services

163. What type of services are associated with EMR?

    A. Storage services

    B. Analytic services

    C. Compute services

    D. Networking services

164. What type of services are associated with Cloud9?
  - **A.** Storage services
  - **B.** Analytic services
  - **C.** Developer services
  - **D.** Networking services

165. What type of services are associated with Direct Connect?
  - **A.** Storage services
  - **B.** Analytic services
  - **C.** Developer services
  - **D.** Networking services

166. What type of services are associated with Workspaces?
  - **A.** Mobile services
  - **B.** Analytic services
  - **C.** Developer services
  - **D.** Desktop services

167. What type of services are associated with Kinesis?
  - **A.** Mobile services
  - **B.** Analytic services
  - **C.** Developer services
  - **D.** Desktop services

168. What type of services are associated with Elastic Transcoder?
  - **A.** Mobile services
  - **B.** Analytic services
  - **C.** Media services
  - **D.** Desktop services

169. What type of services are associated with OpsWorks?
  - **A.** Mobile services
  - **B.** Analytic services
  - **C.** Media services
  - **D.** Management services

170. What type of services are associated with Lex?
  - **A.** Machine learning services
  - **B.** Analytic services
  - **C.** Media services
  - **D.** Management services

171. Which service is best suited for monitoring the performance of your compute instances?

    A. CloudWatch

    B. CloudTrail

    C. OpsWorks

    D. Config

172. What is an availability zone?

    A. A virtual data center

    B. A geographical area with redundancy within that area for compute, networking, and storage service

    C. A distinct location within AWS designed to be isolated from failures

    D. Both A and C

173. What is a region?

    A. A virtual data center

    B. A geographical area with redundancy within that area for compute, networking, and storage service

    C. A distinct location within AWS designed to be isolated from failures

    D. Both A and C

174. Which of the following statements do not describe a region? (Choose two.)

    A. A region is an area with specific AWS managed services (compute, networking, storage, etc.).

    B. A region is a virtual data center with built-in redundancy.

    C. A region is a collection of availability zones for redundancy.

    D. A region is a geographic area with at least two virtual data centers.

175. Which of the following statements do not describe an availability zone? (Choose two.)

    A. An availability zone hosts your compute instances.

    B. An availability zone provides redundancy for your applications.

    C. An availability zone is isolated from other availability zones except with regard to networking.

    D. An availability zone contains virtual data centers.

176. Which of the following statements are true about availability zones? (Choose two.)

    A. An elastic IP is always tied to one specific availability zone.

    B. A region always contains two availability zones.

    C. An availability zone's name (for example, us-east-1a) may change across AWS accounts.

    D. You can specify an availability zone in which to launch your instance when creating the instance.

177. Which of the following are actual region identifiers within AWS? (Choose two.)

  A. us-east-2

  B. jp-south-2

  C. ap-south-1

  D. uk-west-1

178. Which of the following are valid region identifiers within AWS? (Choose two.)

  A. US East 2

  B. eu-west-1

  C. ap-south-1a

  D. us-east-1

179. Which of the following is a valid availability zone identifier within AWS?

  A. us-east-2b

  B. eu-west-1

  C. us-west-az-1

  D. az-sa-east-1a

180. Which AWS service functions like a NAS in the cloud?

  A. EBS

  B. Tape gateway

  C. EFS

  D. DynamoDB

181. Which of the following is a caching engine?

  A. ElastiCache

  B. DynamoDB

  C. memcached

  D. IAM

182. Which of the following are caching engines used by ElastiCache? (Choose two.)

  A. Redis

  B. DynamoDB

  C. memcached

  D. CloudFront

183. Which of the following can you use reserved instances with?

  A. RDS

  B. EC2

  C. Both A and B

  D. None of the above

184. For which of the following can you use reserved instances?

    A. RDS Multi-AZ deployments.

    B. RDS standard deployments

    C. ElastiCache nodes

    D. All of the above

185. In which situations will an RDS instance with Multi-AZ configured fail over? (Choose two.)

    A. When you manually force a failover

    B. When the primary zone is unreachable

    C. When the secondary zone is unreachable

    D. When two successive database reads fail

186. Which of the following can you select when you create an RDS instance? (Choose two.)

    A. The type of database to use

    B. The number of network connections to allow before failing over

    C. The number of database processes to allow

    D. The availability zone to deploy the instance to

187. Which of the following may happen when you have a single-AZ RDS database and a backup begins? (Choose two.)

    A. Latency increases.

    B. Database responses may temporarily slow.

    C. The database goes offline temporarily.

    D. Network requests will fail for up to a minute.

188. Which of the following database engines are available for RDS? (Choose two.)

    A. Hyperion

    B. Cassandra

    C. Oracle

    D. SQL Server

189. Which of the following is true about RDS? (Choose two.)

    A. Reserved instances can be used for Multi-AZ deployments.

    B. Automated backups are turned off by default.

    C. Every database supported by RDS can also be installed directly on EC2 instances.

    D. All RDS databases support SQL as an interface.

190. What is the default port for MySQL via RDS?

    A. 80

    B. 443

    C. 22

    D. 3306

191. When AWS uses the term *OLAP*, what does that acronym stand for?

- **A.** Online analytics processing
- **B.** Offline analytic processing
- **C.** Online aggregation processing
- **D.** Offline activity and payment

192. When AWS uses the term OLTP, what does that acronym stand for?

- **A.** Offline training and practice
- **B.** Offline transaction processing
- **C.** Online traffic provisioning
- **D.** Online transaction processing

193. Which of the following is most suitable for OLAP?

- **A.** Redshift
- **B.** ElastiCache
- **C.** DynamoDB
- **D.** Aurora

194. Which of the following is most suitable for OLTP?

- **A.** Redshift
- **B.** ElastiCache
- **C.** DynamoDB
- **D.** Aurora

195. Which of the following are most suitable for OLTP? (Choose two.)

- **A.** memcached
- **B.** Oracle
- **C.** DynamoDB
- **D.** SQL Server

196. Which of the following is best suited for data warehousing?

- **A.** redis
- **B.** Oracle
- **C.** DynamoDB
- **D.** Redshift

197. Which of the following is best suited for big data processing?

- **A.** EMR
- **B.** QuickSight
- **C.** ElastiCache
- **D.** Athena

198. Which of the following is best suited for real-time analytics?

    A. EMR

    B. QuickSight

    C. Kinesis

    D. Athena

199. Which of the following is best suited for dashboards and visualizations?

    A. EMR

    B. QuickSight

    C. Kinesis

    D. Athena

200. Which of the following is best suited for interactive analytics?

    A. EMR

    B. QuickSight

    C. Kinesis

    D. Athena

201. What are the most common frameworks used with Amazon EMR? (Choose two.)

    A. Scala

    B. Hadoop

    C. Java

    D. Spark

202. How many copies of data does Aurora store by default?

    A. One

    B. Three

    C. Four

    D. Six

203. Across how many availability zones does Aurora store your data by default?

    A. One

    B. Three

    C. Four

    D. Two

204. In an RDS, managed service capacity, which of the following databases is generally fastest?

    A. PostgreSQL

    B. MySQL

    C. Aurora

    D. They are all equivalent.

205. In an RDS, managed service capacity, which of the following databases is most resistant to disaster by default?

A. Aurora

B. Oracle

C. MySQL

D. They are all equivalent.

206. Which of the following databases can Aurora interact with seamlessly? (Choose two.)

A. DynamoDB

B. PostgreSQL

C. MySQL

D. HyperionDB

207. Which of the following is allowed on your RDS instance? (Choose two.)

A. SSH

B. SQL queries

C. RDP

D. HTTP-accessible APIs

208. What is the maximum backup retention period allowed by RDS, in days?

A. 15 days

B. 30 days

C. 35 days

D. 45 days

209. If you install Oracle on an EC2 instance, what should you use for storage for that database?

A. EBS

B. S3

C. EFS

D. RDS

210. Which of the following are suitable for OLTP? (Choose two.)

A. EBS

B. Aurora

C. DynamoDB

D. MariaDB

211. Which of the following are not suitable for OLTP? (Choose two.)

A. Kinesis

B. PostgreSQL

C. Redshift

D. SQL Server

212. Which of the following does a Multi-AZ RDS setup address? (Choose two.)

   A. Disaster recovery

   B. Read performance

   C. Data redundancy

   D. Network latency

213. Which of the following does a read replica RDS setup address? (Choose two.)

   A. Disaster recovery

   B. Read performance

   C. Offline backup

   D. Network latency

214. Which of the following does a read replica support? (Choose two.)

   A. Reads from applications

   B. Writes to applications

   C. Writes from the primary instance

   D. Writes from applications using the RDS API

215. Which of the following does a Multi-AZ setup not provide?

   A. Disaster recovery

   B. Data redundancy

   C. Improved performance

   D. Access to all RDS databases

216. Which of the following does a Multi-AZ setup provide?

   A. Decreased network latency

   B. Synchronous replication

   C. Asynchronous replication

   D. Multiple read sources for applications

217. Which of the following does a read replica provide?

   A. Increased network latency

   B. Synchronous replication

   C. Disaster recovery

   D. Asynchronous replication

218. Which of the following is associated with read replicas?

   A. High scalability

   B. Primary and secondary instances

   C. High durability

   D. Automatic failover

219. Which of the following is associated with Multi-AZ RDS?

    A. Manual backup configuration

    B. Independent database upgrades

    C. High durability

    D. More than two database instances

220. How many read replicas are supported in a read replica setup?

    A. Three

    B. Five

    C. Seven

    D. Unlimited (although cost applies for each replica)

221. Which of the following databases do not support a read replica setup? (Choose two.)

    A. DynamoDB

    B. Redshift

    C. MySQL

    D. MariaDB

222. Which of the following statements about DynamoDB are true? (Choose two.)

    A. DynamoDB offers push-button scaling.

    B. DynamoDB supports read replicas.

    C. DynamoDB databases can scale up without needing a bigger underlying instance.

    D. DynamoDB instance sizes are selected at runtime.

223. Which of the following statements about DynamoDB are true? (Choose two.)

    A. DynamoDB is more difficult to scale than RDS.

    B. DynamoDB uses SSD storage.

    C. DynamoDB is spread across at least three regions.

    D. DynamoDB uses magnetic storage.

224. What is the default consistency model for DynamoDB?

    A. Eventually consistent reads

    B. Immediately consistent reads

    C. Eventually pristine reads

    D. Eventually consistent writes

225. Which of the following are supported consistency models for DynamoDB? (Choose two.)

    A. Eventually consistent reads

    B. Strongly consistent writes

    C. Immediately consistent reads

    D. Strongly consistent reads

226. You are a solutions architect for a data-driven company using DynamoDB. They want to ensure always-accurate responses, so they have enabled strongly consistent reads. However, API calls to read data sometimes do not immediately return, and sometimes fail. What possible causes could there be? (Choose two.)

   A. A recent write was made and is not yet complete. As a result, a read operation is delayed waiting on the write operation to complete.

   B. A recent write was made and is replicating to the secondary instance. Until that replication completes, the read operation will lag.

   C. A network outage has interrupted a recent read, and subsequent reads of that data are delayed as a result.

   D. A network outage has interrupted a recent write, and subsequent reads of that data are delayed as a result.

227. Which of the following is a valid VPC configuration?

   A. A single public subnet without any private subnets

   B. A single private subnet without any public subnets

   C. A single public subnet with two private subnets

   D. All of the above

228. Which of the following are assigned to an EC2 instance in a default VPC? (Choose two.)

   A. A private IP address

   B. An elastic IP address

   C. An internal AWS-only IP address

   D. A public IP address

229. Which of the following can an EC2 instance in a public VPC be assigned? (Choose two.)

   A. A private IP address

   B. An elastic IP address

   C. An IPv6 address

   D. Both A and B

230. Which of the following can you peer a VPC in your AWS account with? (Choose two.)

   A. Itself

   B. Another VPC in your account

   C. A VPC in another AWS account

   D. A public subnet in another AWS account

231. Which of the following offers the largest range of IP addresses?

   A. /16

   B. /20

   C. /24

   D. /28

232. What does the SWF in Amazon SWF stand for?
  A. Simple Workflow
  B. Simple Workflow Formation
  C. Simple Web Forms
  D. Simple Working Automation

233. What languages can you use with SWF?
  A. Java, Node.js, JavaScript, and Ruby
  B. Java, Node.js, and JavaScript
  C. Perl, PHP, Node.js, and JavaScript
  D. All of the above

234. How are requests and responses to SWF sent and received?
  A. Via the AWS-specific API using application keys
  B. Via HTTP request and response codes
  C. Via web-accessible language-specific endpoints
  D. All of the above

235. Which of the following is a good use case for SWF?
  A. Managing single-sign on
  B. Managing authentication and identification
  C. Managing logging and auditing of VPC interactions
  D. Managing tasks across multiple components

236. How does SWF communicate?
  A. Synchronously
  B. Asynchronously
  C. Both A and B
  D. Neither A nor B

237. What does SES stand for in Amazon SES?
  A. Simple Electronic Service
  B. Simple Email Service
  C. Scalable Elastic Service
  D. Sample Engagement Service

238. What service is queue-based and focused on messaging within your applications?
  A. SWF
  B. SNS
  C. SES
  D. SQS

239. Which of the following are true? (Choose two.)

    A. SNS and SQS are interchangeable at an API level.

    B. SNS is a pull-based system while SQS is a push-based system.

    C. SNS manages notifications and SQS manages messages.

    D. SNS is a push-based system while SQS is a pull-based system.

240. Which of the following terms are associated with SQS? (Choose two.)

    A. Tasks

    B. Messages

    C. Notifications

    D. Worker node

241. Which of the following terms are associated with SNS? (Choose two.)

    A. Tasks

    B. Notifications

    C. Push

    D. Pull

242. Which of the following terms are associated with SWF? (Choose two.)

    A. Single delivery

    B. Tasks

    C. Multi-delivery

    D. Messages

243. Which of the following terms are associated with SNS? (Choose two.)

    A. Subscription

    B. Topic

    C. Message

    D. Queue

244. How many times are tasks assigned in SWF?

    A. Once and only once

    B. Once in general, but a task can be reassigned if it fails

    C. Up to three times within the set polling period

    D. A and C are both valid, depending upon the workflow configuration.

245. How are topics represented in SNS?

    A. By a linked list

    B. By an Amazon Resource Name

    C. By an IAM role

    D. By a named message

246. How many times are messages delivered in SQS?

    A. Once and only once

    B. Up to a single time

    C. Up to three times within the set polling period

    D. At least once

247. What is a collection of related SWF workflows called?

    A. A group

    B. A policy

    C. A domain

    D. A cluster

248. How are messages arranged in an SQS queue by default?

    A. FIFO

    B. LIFO

    C. In reverse order, that is, the last message received is the first available, as much as is possible

    D. In the order in which they were received, as much as is possible

249. The company at which you have been hired as an architect is using Amazon SQS. The company's applications process orders out of the queue as they are received, ensuring that earlier orders get any limited items that may run out of stock over time. However, some early orders are skipped, and later orders actually get the limited items. How would you correct this problem?

    A. Move from SQS to SWF to ensure single delivery of messages.

    B. Configure the SQS queue as FIFO to guarantee the order of message delivery.

    C. Move from SQS to SNS and implement a queue in the application code.

    D. Turn on order locking in the SQS queue.

250. You have a hub-and-spoke network model, with VPC C at the center of the hub. There are six spokes, VPCs A, B, D, E, F, and G. Which VPCs can communicate with VPC C directly? (Choose two.)

    A. VPCs A and B

    B. VPCs D and E

    C. VPCs F and G

    D. Options A and B

251. You have a hub-and-spoke network model, with VPC C at the center of the hub. There are six spokes, VPCs A, B, D, E, F, and G. Which VPCs can communicate with VPC A directly? (Choose two.)

    A. VPCs A and B

    B. VPC C

    C. VPC A

    D. Any additional VPCs peered directly with VPC A

252. You have a hub-and-spoke network model, with VPC G at the center of the hub. There are six spokes, VPCs A, B, C, D, E, and F. Which of the following are true? (Choose two.)

   A. VPCs A and B can communicate with each other directly.

   B. VPCs G and B can communicate with each other directly.

   C. VPCs A and C cannot communicate with each other directly.

   D. VPCs G and D cannot communicate with each other directly.

253. You have a hub-and-spoke network model, with VPC B at the center of the hub. There are three spokes, VPCs A, C, and E. Which of the following are not true? (Choose two.)

   A. VPCs A and B can communicate with each other directly.

   B. VPCs C and B can communicate with each other directly.

   C. VPCs A and C can communicate with each other directly.

   D. VPCs C and E can communicate with each other directly.

254. Select the statement that is true.

   A. Security groups are stateless and NACLs are stateful.

   B. Security groups are stateful and NACLs are stateless.

   C. Both security groups and NACLs are stateless.

   D. Both security groups and NACLs are stateful.

255. Select the statement that is true.

   A. In a NACL, explicit rules must exist for both inbound and outbound traffic for a single request to get in and come back out.

   B. In a security group, explicit rules must exist for both inbound and outbound traffic for a single request to get in and come back out.

   C. In both NACLs and security groups, explicit rules must exist for both inbound and outbound traffic for a single request to get in and come back out.

   D. Neither NACLs nor security groups require both inbound and outbound explicit rules for the same piece of traffic.

256. Select the statement that is true.

   A. In a NACL, traffic that is allowed in is automatically allowed back out.

   B. In a security group, traffic that is allowed in is automatically allowed back out.

   C. In both NACLs and security groups, explicit rules must exist for both inbound and outbound traffic for a single request to get in and come back out.

   D. Neither NACLs nor security groups require both inbound and outbound explicit rules for the same piece of traffic.

257. Into how many subnets must an ALB be deployed (at a minimum)?

   A. One

   B. Two

   C. Three

   D. Five

258. Which of the following are created automatically when you create a new custom VPC? (Choose two.)

  A. Security group

  B. NAT gateway

  C. Subnet

  D. Route table

259. Which of the following are created automatically as part of the default VPC? (Choose two.)

  A. NAT instance

  B. NAT gateway

  C. Subnet

  D. Route table

260. Which of the following are created automatically as part of the default VPC? (Choose two.)

  A. Internet gateway

  B. NAT gateway

  C. NACL

  D. IAM role

261. What is the size of the default subnet in each availability zone within the default VPC?

  A. /20

  B. /16

  C. /28

  D. /24

262. What is the size of the CIDR block created in the default VPC?

  A. /20

  B. /16

  C. /28

  D. /24

263. What is the size of the CIDR block created in a custom VPC?

  A. /20

  B. /16

  C. /28

  D. You must select a size at VPC creation.

264. Which of the following offers the most available IP addresses?

    A. /20

    B. /16

    C. /28

    D. /18

265. Which of the following are not created as part of the default VPC? (Choose two.)

    A. Internet gateway

    B. Security group

    C. NAT gateway

    D. Bastion host

266. Is the default VPC created by AWS public?

    A. Only if you set it to be public at creation time

    B. Yes

    C. Only for traffic over port 80

    D. No

267. Which of the following statements are true? (Choose two.)

    A. The default VPC has an internet gateway attached by default.

    B. Custom VPCs do not have internet gateways attached by default.

    C. The default VPC does not have an internet gateway attached by default.

    D. Custom VPCs have internet gateways attached by default.

268. Which of the following statements are true? (Choose two.)

    A. The default VPC has a NACL created by default.

    B. All incoming traffic is allowed by the default security group on a VPC.

    C. All outgoing traffic is allowed by the default security group on a VPC.

    D. The default security group for the default VPC allows inbound HTTP traffic.

269. Which of the following statements are true about both the default VPC and custom VPCs? (Choose two.)

    A. They have NACLs automatically created.

    B. They have internet gateways automatically created.

    C. They have subnets automatically created.

    D. They have security groups automatically created.

270. Which of the following are created automatically for the default VPC but not for custom VPCs? (Choose two.)

    A. A route table

    B. A subnet

    C. A security group allowing outbound traffic

    D. An internet gateway

271. All EC2 instances in the default VPC have which of the following by default? (Choose two.)

   A. An elastic IP address

   B. A public IP address

   C. A private IP address

   D. HTTP access for incoming requests

272. You created a new instance in the default VPC. You want this instance to be publicly available and serve web content. What steps do you need to take? (Choose two.)

   A. Create an private IP for the instance.

   B. Create a public IP for the instance.

   C. Neither A nor B, these are done automatically.

   D. Update the security group to allow traffic over HTTP and HTTPS to the instance.

273. You created a new instance in a custom VPC. You want this instance to be publicly available and serve web content. What steps do you need to take? (Choose two.)

   A. Create an elastic IP for the instance.

   B. Create an internet gateway for the VPC.

   C. Update the security group to allow traffic over HTTP and HTTPS to the instance.

   D. Both A and B

274. Why would you use a VPC endpoint to connect your VPC to S3 storage? (Choose two.)

   A. To reduce the number of public IP addresses required by your VPC

   B. To avoid leaving the AWS network when traffic flows between the VPC and S3

   C. To increase security of the VPC-to-S3 traffic

   D. To increase the speed as compared to using a NAT instance

275. Which of the following does a VPC endpoint require?

   A. Internet gateway

   B. NAT instance

   C. VPN connection

   D. None of the above

276. Which of the following statements about a VPC endpoint are true? (Choose two.)

   A. It is a hardware device.

   B. It is a virtual device.

   C. It is automatically redundant.

   D. It scales vertically.

277. Which of the following statements about a VPC endpoint are true? (Choose two.)

    A. It requires a VPN connection.

    B. It can connect to DynamoDB.

    C. The VPC it is attached to must have an internet gateway.

    D. It never routes traffic over the public Internet.

278. Which of these are types of VPC endpoints? (Choose two.)

    A. Interface endpoint

    B. Peering endpoint

    C. Gateway endpoint

    D. Service endpoint

279. Which of the following can a VPC gateway endpoint connect to? (Choose two.)

    A. S3

    B. Route 53

    C. A Kinesis data stream

    D. DynamoDB

280. Which of the following can a VPC interface endpoint connect to? (Choose two.)

    A. An API gateway

    B. A VPN

    C. A Kinesis data stream

    D. DynamoDB

281. Which of the following is true about instances in a VPC using a VPC endpoint to connect to S3 storage? (Choose two.)

    A. They must have a public IP.

    B. They must route traffic through a NAT instance to get to the endpoint.

    C. They do not send their traffic over the public Internet to reach the VPC endpoint.

    D. They must have routes to the VPC endpoint in the VPC routing table.

282. At what level do security groups operate?

    A. The subnet level

    B. The VPC level

    C. The instance level

    D. All of the above

283. Which types of rules do security groups allow?

    A. Allow rules only

    B. Allow and deny rules

    C. Deny rules only

    D. Allow, deny, and permit rules

284. Security groups use which models for traffic? (Choose two.)

    A. Traffic is denied by default.

    B. Traffic is allowed by default.

    C. Traffic is only allowed if there are specific allow rules.

    D. Traffic is only denied if there are specific deny rules.

285. Which of the following is true about security groups?

    A. They evaluate all rules before deciding whether to allow traffic.

    B. They evaluate rules from top to bottom before deciding whether to allow traffic.

    C. They evaluate rules in numeric order before deciding whether to allow traffic.

    D. They evaluate orders from high to low before deciding whether to allow traffic.

286. In which order are rules evaluated when a security group decides if traffic is allowed?

    A. Top to bottom

    B. High to low numeric order

    C. Low to high numeric order

    D. All rules are evaluated before a decision is made.

287. How many VPCs can you create in a single AWS region by default?

    A. 3

    B. 5

    C. 10

    D. 20

288. Which of the following is true about a new subnet created in a custom VPC that was set up with the default configuration?

    A. It needs a custom route table created.

    B. It can communicate with other subnets across availability zones.

    C. It will not have a NACL.

    D. It will have an internet gateway attached.

289. Which of these allow you to SSH into an EC2 instance within a private subnet?

    A. A NAT gateway

    B. An internet gateway

    C. A NAT instance

    D. A bastion host

290. Which of the following allow a private instance to communicate with the Internet? (Choose two.)

    A. A NAT gateway

    B. An internet gateway

    C. A NAT instance

    D. A bastion host

291. How many internet gateways can each VPC have?

   A. One

   B. Two

   C. Three

   D. One for each AZ in which the VPC exists

292. You are attempting to create a VPC in an AWS account and getting an error. When you look at the console, you see that the region you're trying to create the VPC in already has five VPCs. What step should you take to create the VPC you need?

   A. You can't. Each region can only have five VPCs.

   B. Configure the VPC to be peered with an existing VPC to get around the five-VPC per-region limit.

   C. Contact AWS and explain your need for a higher number of VPCs in the region.

   D. Create the VPC in a different region.

293. What benefit does adding a second internet gateway to your VPC provide?

   A. Increased network throughput via two channels into the VPC

   B. The second VPC can be used to facilitate VPC endpoints with S3 and DynamoDB.

   C. You can't add a second internet gateway to a single VPC.

   D. You can't have two internet gateways within the same region.

294. You have created a custom VPC, created instances within that VPC, and stood up web servers on those instances. What are the simplest steps you might need to perform to serve this web content to the public Internet? (Choose two.)

   A. Add an internet gateway to the VPC.

   B. Create a NAT gateway for the instances.

   C. Create an ALB and point it at the instances.

   D. Set a public IP for the instances.

295. You have created a custom VPC, created instances within that VPC, attached an internet gateway to the VPC, and stood up web servers on those instances. However, users are unable to access the web content. What might be the problem? (Choose two.)

   A. The security group doesn't allow outbound HTTP traffic.

   B. The security group doesn't allow inbound HTTP traffic.

   C. The instances don't have elastic IP addresses.

   D. The NACL for the VPC's subnet allows all inbound traffic.

296. Which of the following statements is false?

   A. One VPC can have a single internet gateway.

   B. One VPC can have multiple subnets.

   C. A single instance retains its public IP within a VPC when stopped and restarted.

   D. A single instance does not retain its public IP within a VPC when stopped and restarted.

297. Which of the following statements is false?

A. A subnet cannot span multiple availability zones.

B. A VPC can peer with no more than two other VPCs.

C. A VPC can peer with VPCs in other AWS accounts.

D. A subnet can be public or private if a VPC has an internet gateway attached.

298. Why would you choose a NAT instance over a NAT gateway?

A. NAT instances are faster than NAT gateways.

B. NAT instances auto-size to accommodate traffic increases, while NAT gateways do not.

C. NAT instances are automatically kept updated with patches by AWS, while NAT gateways are not.

D. You wouldn't; NAT gateways are, in general, a better solution than NAT instances.

299. How do you change a VPC that is set to use dedicated hosting tenancy to use default tenancy?

A. You can change the hosting tenancy of the VPC without affecting the running instances.

B. Stop all instances in the VPC, and then you can change the VPC's hosting tenancy.

C. Remove all instances in the VPC, and then you can change the VPC's hosting tenancy.

D. You can't; you must re-create the VPC.

300. How quickly are changes made to the security group within a custom VPC applied?

A. Immediately

B. Within 60–90 seconds

C. The next time each instance restarts, or within 24 hours if the instance does not restart

D. Security groups aren't associated with VPCs.

301. You have a custom VPC with a public subnet. The VPC has an internet gateway attached to it. What else should you do to ensure that instances within the subnet can reach the Internet?

A. Add a route to the route table that directs traffic directed at the public Internet to go through the internet gateway.

B. Add a rule to the security group allowing outbound traffic out via HTTP.

C. Ensure that each instance has a public IP address.

D. The instances should have public access with this configuration already.

302. Which types of content can CloudFront cache?

A. Static and dynamic content

B. Static content, but not dynamic content

C. Dynamic content, but not static content

D. CloudFront is not a caching mechanism.

303. You have web applications that are serving up content via a large RDS instance. You are seeing heavy database utilization and want to improve performance. What might you suggest? (Choose two.)

    A. Increase the instance size of the database.

    B. Increase the instance size of the web application servers.

    C. Set up CloudFront to handle dynamic content as well as static content.

    D. Add an additional fleet of EC2 instances to serve the web content.

304. You are tasked with creating a new VPC for a large company, hosting a fleet of instances within the VPC, and ensuring that they can write to the company's S3 buckets and also be accessed via a REST API that they each host. Which of the following would be part of your proposed solution? (Choose two.)

    A. A customer gateway

    B. An internet gateway

    C. A VPC endpoint

    D. A new NACL

305. You are tasked with hosting a fleet of instances within the default VPC of a company's AWS account and ensuring that the instances can write to the company's S3 buckets and also be accessed via a REST API that they each host. Which of the following would be part of your proposed solution? (Choose two.)

    A. A customer gateway

    B. An internet gateway

    C. A VPC endpoint

    D. An updated set of rules for the NACL

306. You have been asked to troubleshoot a Direct Connect connection between your company's on-site data center and a subnet within a public VPC. You have confirmed that you can reach the instances in the VPC from your data center, but those instances cannot reach back to your data center. What would you investigate? (Choose two.)

    A. The VPC subnet's routing table

    B. The on-site storage gateway

    C. The NAT instance in your VPC

    D. The virtual private gateway configuration

307. What is route propagation with respect to a virtual private gateway?

    A. It copies all routes from an on-site network to an AWS VPC's subnets routing tables.

    B. It helps avoid manually entering VPN routes into your VPC routing tables.

    C. It automatically allows inbound traffic from your on-premises connection.

    D. It enables storage-based traffic from a customer's storage gateway.

308. What URL provides you with the public and private IP addresses of running EC2 instances?

    A. `http://169.254.169.254/meta-data/`

    B. `http://169.254.169.254/latest/meta-data/`

    C. `http://169.254.169.254/instance-data/`

    D. `http://169.254.169.254/latest/instance-data/`

309. Which of the following is a highly durable key-value store?

    A. S3

    B. EFS

    C. EBS

    D. ElastiCache

310. Which of the following is a valid Glacier use case?

    A. Storing insurance documents accessed once or twice a day by mobile clients

    B. Storing medical records in case of annual audits

    C. Storing patient images used in the scheduling department's web-based software

    D. Storing X-rays used in teaching exercises at the local college

311. You have been called in to mitigate a disastrous loss of data on S3 at a bioethics company. After investigating, it is determined that the data was deleted accidentally by a developer. The company wants to ensure that data cannot be accidentally deleted like this in the future. What would you suggest? (Choose two.)

    A. Enable S3 versioning on all S3 buckets.

    B. Create an IAM policy that disallows developers from deleting data in S3.

    C. Replace the current access pattern with signed URLs.

    D. Enable MFA Delete on the buckets.

312. How many instances can you launch in a given AWS region?

    A. 20

    B. 40

    C. 20, but this is a soft limit and can be increased by AWS

    D. 40, but this is a soft limit and can be increased by AWS

313. You are using a NAT instance inside of a VPC to support routing out to the public Internet from private instances within that VPC. As traffic has increased, the performance of any operations involving the outbound Internet traffic has degraded to unacceptable levels. How would you mitigate this problem?

    A. Add an additional internet gateway so the NAT instance can split outbound traffic over two gateways.

    B. Add an additional elastic IP to the NAT instance to increase throughput.

    C. Increase the instance size of the NAT instance by one or more instance size classes.

    D. All of these are valid solutions.

314. What is the simplest way to reduce frequent scaling in an application? For example, if an application is showing that it's scaling up and down multiple times in an hour, how would you reduce the number of "ups and downs" you are seeing?

- **A.** Set up scheduled times with proactive cycling for the scaling so that it is not occurring all the time.
- **B.** Increase the cooldown timers so that scaling down requires greater thresholds of change in your triggers.
- **C.** Update CloudWatch to use a FIFO termination policy, only terminating the oldest instances in a scaledown.
- **D.** None of these will improve the issue.

315. Which of these steps are required to get a NAT instance working? (Choose two.)

- **A.** Update the routing table for EC2 instances accessing the public Internet to go through the NAT instance.
- **B.** Locate the NAT instance within the private subnet that it will be serving.
- **C.** Disable source/destination checks on your instance.
- **D.** Set the NAT instance to allow port forwarding from the private subnet.

316. Which of these is not a default CloudWatch metric?

- **A.** Disk read operations
- **B.** Memory usage
- **C.** CPU usage
- **D.** Inbound network traffic

317. You have an existing fleet of EC2 instances in a public subnet of your VPC. You launch an additional instance from the same AMI as the existing instances, into the same public subnet. What steps might you need to take to ensure that this instance can reach the public Internet? (Choose two.)

- **A.** Assign an elastic IP address to the instance.
- **B.** Add the instance to the ELB serving the existing instances.
- **C.** Add the instance into a private subnet.
- **D.** Ensure that the instance has a route out to the Internet.

318. Which of the following is the destination address for the public Internet?

- **A.** 192.168.1.255/0
- **B.** 0.0.0.0/16
- **C.** 169.254.169.254/0
- **D.** 0.0.0.0/0

319. Which of the following would you use to route traffic from your subnet to the public Internet?

- **A.** Destination: 0.0.0.0/0 ➢ Target: your internet gateway
- **B.** Destination: 0.0.0.0/16 ➢ Target: your internet gateway
- **C.** Destination: your internet gateway ➢ Target: 0.0.0.0/0
- **D.** Destination: 0.0.0.0/0 ➢ Target: your virtual private gateway