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## 202203\_Cloud Computing\_DATS\_6450\_10

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Grade Details

Grade Test: CC-Fall2022-Final

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He Huang (Attempt 1

of 1)

## Test Information

## QUESTION 1: MULTIPLE CHOICE

2

out of 2 points

What happens when an EC2 instance that is being served traffic from an ELB becomes unhealthy?



Given



Answer:

The ELB will stop serving traffic to it

and divert it's traffic to a healthy instance.

Correct 

Answer: The ELB will stop serving traffic to it and divert it's traffic to a healthy instance.

---

**QUESTION 2: EITHER/OR**

2

out of 2 points

A Kinesis consumer can include AWS services such as Redshift and S3.



Given Answer:  Yes

Correct Answer:  Yes

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**QUESTION 3: MULTIPLE CHOICE**

2


out of 2 points

Balancing. This is the first and possibly only time that they will require this access. Which of the following choices would be the best way to allow this access?



Given Answer: 

Delegate access to the ELB using an IAM role

Correct Answer: 

Delegate access to the ELB using an IAM role

**QUESTION 4: MULTIPLE CHOICE**

2

out of 2 points



After building a new VPC from scratch, you have attached an internet gateway to the only route table within your VPC. This means all instances currently belong to a public subnet. While trying to connect to one of the instances over the internet gateway, you experience connectivity issues preventing any communication from your machine to the instance over the internet. After investigating, you notice that the security group has proper permissions and you need to:

Given



Answer:

Change the route table destination for the IGW to be 0.0.0.0/0

Correct



Answer:

Change the route table destination for the IGW to be 0.0.0.0/0


**QUESTION 5: MULTIPLE ANSWER**

4

out of 4 points



After migrating an application architecture from on-premises to AWS, you will not be responsible for the ongoing maintenance of packages for the following AWS services that your application uses:

Given Answers:  DynamoDB

✔ RDS

Correct Answers: ✔ DynamoDB

✔ RDS

---

**QUESTION 6: EITHER/OR****2****out of 2 points**

Amazon Athena provides the easiest way to run ad-hoc queries for data in S3 without the need to set up or manage any servers.

Given Answer: ✔ Yes

Correct Answer: ✔ Yes

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**QUESTION 7: MULTIPLE ANSWER****4****out of 4 points**

Given Answers: ✔ Infrequently accessed data

✔ Data archives

Correct Answers: ✔ Infrequently accessed data

✔ Data archives

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**QUESTION 8: EITHER/OR****2****out of 2 points**



An ELB can serve traffic to instances located inside a private subnet.

Given Answer: ☒ Yes

Correct Answer: ☒ Yes

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**QUESTION 9: EITHER/OR**

2

out of 2 points



Auto Scaling is a tool used for creating elastic and self-healing applications.

Given Answer: ☒ True

Correct Answer: ☒ True

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**QUESTION 10: MULTIPLE CHOICE**

2

out of 2 points



Currently, you're helping design and architect a highly-available application. After building the initial environment, you've found that part of your application does not work correctly until port 443 is added to the security group. After adding port 443 to the appropriate security group, how much time will it take before the changes are applied and the application begins working correctly?

Given

Answer:



Changes apply instantly to the security group, and the application should be able to immediately

respond to 443 requests

Correct 

Answer: Changes apply instantly to the security group, and the application should be able to immediately respond to 443 requests

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**QUESTION 11: EITHER/OR**

2

out of 2 points



EMR allows you to access the underlining operating system by allowing you to access its underlying nodes

Given Answer:  True

Correct Answer:  True

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**QUESTION 12: MULTIPLE CHOICE**

2

out of 2 points



Elasticity is a fundamental property of the cloud. What best describes elasticity?

Given 

Answer: Power to scale computing resources up and down easily with minimal friction

Correct 

Answer: Power to scale computing resources up and down easily with minimal friction

**QUESTION 13: EITHER/OR**

2

out of 2 points



Elasticity is a primary benefit of using Auto Scaling.

Given Answer: True

Correct Answer: True

**QUESTION 14: MULTIPLE CHOICE**

2

out of 2 points



Given

Answer:



The ELB will de-register the instance and stop sending traffic to the unhealthy instance

Correct

Answer:



The ELB will de-register the instance and stop sending traffic to the unhealthy instance

**QUESTION 15: MULTIPLE CHOICE**

4

out of 4 points

If you want to process data in real-time, what AWS service should you use?



Given Answer: ☒ Kinesis

Correct Answer: ☒ Kinesis

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**QUESTION 16: MULTIPLE CHOICE****4****out of 4 points**

If your Kinesis stream needs additional processing power, what component will you need to add more of?



Given Answer: ☒ Shards

Correct Answer: ☒ Shards

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**QUESTION 17: EITHER/OR****2****out of 2 points**

If your application is continually crashing due to high demand, you should make sure the Elastic Load Balancer has the proper scaling policies for adding new instances when needed.



Given Answer: ☒ False

Correct Answer: ☒ False

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**QUESTION 18: MULTIPLE ANSWER****4****out of 4 points**



If your organization is concerned about storing sensitive data in the cloud, you should \_\_\_\_\_.

Given Answers: ☒ Enable S3 Encryption  
☒ Enable EBS Encryption



Encrypt the file system on an EBS volume using Linux tools

Correct Answers: ☒ Enable S3 Encryption  
☒ Enable EBS Encryption



Encrypt the file system on an EBS volume using Linux tools

---

**QUESTION 19: EITHER/OR****2****out of 2 points**

In EMR, data is mapped to a cluster of master/slave nodes for processing.



Given Answer: ☒ Yes

Correct Answer: ☒ Yes

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**QUESTION 20: MULTIPLE ANSWER****4****out of 4 points**

In what two scenarios would you want to use AWS Kinesis? (Select 2 answers)



Given Answers: ☒ Mobile data capture.  
☒ Capturing gaming data.

Correct Answers: ☒ Mobile data capture.  
☒ Capturing gaming data.

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**QUESTION 21: MULTIPLE ANSWER****4****out of 4 points**

Select the true statements regarding Athena. (2 correct answers)

Given  
Answers:

☒ Allows for data partitioning  
☒  
Can write complex queries with JOINS



Correct  
Answers:

☒ Allows for data partitioning  
☒  
Can write complex queries with JOINS

---

**QUESTION 22: MULTIPLE CHOICE****2****out of 2 points**

What are the two main components of AWS Auto Scaling?

Given





Answer: Launch configuration and Auto Scaling groups

Correct 

Answer: Launch configuration and Auto Scaling groups

---

**QUESTION 23: MULTIPLE CHOICE****2****out of 2 points**

What best describes a scaling policy?

Given 

Answer: A set of CloudWatch metric thresholds that dictate when to add or remove instances from the Auto Scaling group.



Correct 

Answer: A set of CloudWatch metric thresholds that dictate when to add or remove instances from the Auto Scaling group.

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**QUESTION 24: MULTIPLE CHOICE****2****out of 2 points**

What best describes the purpose of an Elastic Load Balancer?

Given 

Answer: To evenly distribute traffic among multiple EC2 instances in separate Availability Zones



Correct 

Answer: To evenly distribute traffic among multiple EC2 instances in separate Availability Zones

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**QUESTION 25: MULTIPLE CHOICE**

2

out of 2 points

What is the difference between an Availability Zone and an edge location?

Given 

Answer: An Availability Zone is an Amazon resource within an AWS region; an edge location will deliver cached content to the closest location to reduce latency



Correct 

Answer: An Availability Zone is an Amazon resource within an AWS region; an edge location will deliver cached content to the closest location to reduce latency

---

**QUESTION 26: MULTIPLE CHOICE**

2

out of 2 points

What is the purpose of a Kinesis producer?

Given 

Answer: To collect and send data into a



Kinesis stream.

Correct  
Answer:



To collect and send data into a Kinesis stream.

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**QUESTION 27: MULTIPLE ANSWER**

4

out of 4 points

When designing an application architecture utilizing EC2 instances and the ELB, to determine the instance size required for your application, what questions might be important?

Given



Answers:

Determining the minimum memory requirements for an application



Determining the required I/O operations

Correct



Answers:

Determining the minimum memory requirements for an application



Determining the required I/O operations

**QUESTION 28: MULTIPLE CHOICE**

2

out of 2 points

Which of the following is NOT a distributed framework supported by EMR?



Given Answer:  ElasticMappings

Correct Answer:  ElasticMappings


**QUESTION 29: MULTIPLE CHOICE**


2

out of 2 points

You are asked to evaluate a company's AWS environment to find ways to reduce cost. You discover they are running three production web server reserved EC2 instances with EBS-backed root volumes. These instances have a consistent CPU load of 80%. Traffic is being distributed to these instances by an Elastic Load Balancer. They also have production and development Multi-AZ RDS MySQL databases. What recommendation would you make to reduce cost in this environment without affecting the availability of mission-critical systems?



Given Answer:  Consider not using Multi-AZ RDS deployment for the development database

Correct Answer:  Consider not using Multi-AZ RDS deployment for the development

## database

**QUESTION 30: MULTIPLE CHOICE**

2

out of 2 points



You are asked to perform a security audit on a company's AWS environment. You log in to their AWS account with the root user credentials and discover that they are using a VPN to connect to and manage their private EC2 instances. Upon further inspection, you find that they are not regularly patching their RDS instances. Finally, you notice that they are using IAM policies rather than bucket policies to manage access to their S3 buckets. What do you cite as the most critical security risk in your report?

Given



Answer:

The company allows people to log in with their AWS account's root user

Correct



Answer:

The company allows people to log in with their AWS account's root user


**QUESTION 31: MULTIPLE CHOICE**

2

out of 2 points

You are consulting for a finance company that has specific backup and archiving policies. This company's RTO for all financial documents created in the past 6

months is 1 hour. You need to configure a setup that allows for all documents that are 6 months or older to be sent automatically for archiving in a lower-cost but highly durable archive environment. Given that the company is using a Storage Gateway gateway-stored configuration, which of the following would be the best setup to reach the objectives?

Given 

Answer: Enable S3 versioning with a lifecycle policy that sends objects older than 6 months to Amazon Glacier

Correct 

Answer: Enable S3 versioning with a lifecycle policy that sends objects older than 6 months to Amazon Glacier

---


**QUESTION 32: MULTIPLE CHOICE****2****out of 2 points**

You are designing a global application that takes advantage of multiple regions. As part of your application, the need to synchronize from one region to another is required to ensure your application is serving the same data when employing latency-based Route 53 DNS records. To ensure this happens, you have determined that using the AWS CLI to sync files from the primary storage servers to S3 is the best method. How might you implement AWS CLI authentication against the S3 service?

Given 




Answer: Create an EC2 IAM role and assign it to each EC2 instance that utilizes the AWS CLI to sync the data

Correct 

Answer: Create an EC2 IAM role and assign it to each EC2 instance that utilizes the AWS CLI to sync the data

---

**QUESTION 33: MULTIPLE CHOICE****2****out of 2 points**

You are designing a global application that takes advantage of multiple regions. As part of your application, the need to synchronize from one region to another is required to ensure your application is serving the same data when employing latency-based Route 53 DNS records. To ensure this happens, you have determined that using the AWS CLI to sync files from the primary storage servers to S3 is the best method. How  might you implement AWS CLI authentication against the S3 service?

Given 

Answer: Create an EC2 IAM role and assign it to each EC2 instance that utilizes the AWS CLI to sync the data

Correct 

Answer: Create an EC2 IAM role and assign it to each EC2 instance that utilizes the AWS CLI to sync the data

**QUESTION 34: MULTIPLE CHOICE**

2

out of 2 points

You are the system administrator for your company's AWS account of approximately 200 IAM users. A new company policy has just been introduced that will change the access of 50 of the IAM users to have unlimited access to S3 buckets. How can you implement this effectively so that there is no need to apply the policy at the individual user level?



Given



Answer:

Use the IAM groups and add users, based upon their role, to different groups and apply the policy to group

Correct



Answer:

Use the IAM groups and add users, based upon their role, to different groups and apply the policy to group

**QUESTION 35: MULTIPLE CHOICE**

2

out of 2 points

You have been told that you need to set up a bastion host by your manager in the cheapest, most secure way and that you should be the only person that can access it via SSH. Which of the following setups would satisfy your manager's request?



Given



Answer:

A small EC2 instance and a security

group which only allows access on port 22 via your IP address

Correct 

Answer: A small EC2 instance and a security group which only allows access on port 22 via your IP address

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**QUESTION 36: MULTIPLE CHOICE**

2

out of 2 points

You've been tasked with building out a duplicate environment in another region for disaster recovery purposes. Part of your environment relies on EC2 instances with preconfigured software. What steps would you take to configure the instances in another region?



Given



Answer:

Create an AMI of the EC2 instance and copy the AMI to the desired region

Correct



Answer:

Create an AMI of the EC2 instance and copy the AMI to the desired region

---

**QUESTION 37: MULTIPLE CHOICE**

2

out of 2 points

Your AWS environment contains several on-demand EC2 instances dedicated to a project that has just been canceled. Your

supervisor does not want to incur charges for these on-demand instances but also does not want to lose the data just yet because there is a chance the project may be revived in the next few days. What should you do to minimize charges for these instances in the meantime?



Given



Answer:

Stop the instances as soon as possible

Correct



Answer:

Stop the instances as soon as possible

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**QUESTION 38: MULTIPLE CHOICE**

2

out of 2 points

Your company has an application that requires access to a NoSQL database. Your IT department has no desire to manage the NoSQL servers. Which Amazon service provides a fully-managed and highly available NoSQL service?



Given Answer:  DynamoDB

Correct Answer:  DynamoDB

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**QUESTION 39: MULTIPLE CHOICE**

2

out of 2 points



Your company is moving their entire 20 TB data warehouse to the cloud. With your current bandwidth, it would take 2 months to transfer the data. Which service would allow you to quickly get your data into AWS?

Given Answer:  Amazon Import/Export

Correct Answer:  Amazon Import/Export


**QUESTION 40: MULTIPLE CHOICE**


2

out of 2 points



Your web application front end consists of multiple EC2 instances behind an Elastic Load Balancer. You configured the ELB to perform health checks on these EC2 instances. If an instance fails to pass health checks, which statement is true?

Given Answer:  The ELB stops sending traffic to the instance that failed its health check

Correct Answer:  The ELB stops sending traffic to the instance that failed its health check

**QUESTION 41: MULTIPLE CHOICE****4****out of 4 points**

**You are building a transcription service for a startup company in which a fleet of EC2 worker instances process an uploaded audio file and generate a text file as an output. You must store both of these files in the same durable storage until the text file is retrieved by the uploader. Due to an expected demand, you have to ensure that the storage is scalable.**



**Which storage option in AWS can you use in this situation, which is both cost-efficient and scalable?**

Given Answer: A single Amazon S3 bucket

Correct Answer: A single Amazon S3 bucket

**FEEDBACK AND NOTES FOR ATTEMPT**

Feedback to Learner

For the toolbar, press ALT+F10 (PC) or ALT+FN+F10 (Mac).

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