

NAME : \_\_\_\_\_

CLASS : \_\_\_\_\_

DATE : \_\_\_\_\_

1. Which of the following is not one of the four areas of the Performance Efficiency pillar of the AWS Well-Architected Framework?

- |                                       |                                    |
|---------------------------------------|------------------------------------|
| <input type="checkbox"/> Traceability | <input type="checkbox"/> Tradeoffs |
| <input type="checkbox"/> Monitoring   | <input type="checkbox"/> Selection |

2. Which of the following is a principle when designing cloud-based systems?

- |   |   |
|---|---|
| <input type="checkbox"/> Make infrequent, large batch changes | <input type="checkbox"/> Use as many services as possible |
| <input type="checkbox"/> Build tightly-coupled components     | <input type="checkbox"/> Assume everything will fail      |

3. Which of the following are pillars of the AWS Well-Architected Framework? (Choose three)

- |   |  |
|---|--|
| <input type="checkbox"/> Persistence            | <input type="checkbox"/> Cost Optimization |
| <input type="checkbox"/> Operational Excellence | <input type="checkbox"/> Security          |

4. Which design principles are recommended when considering performance efficiency? (Choose 2)

- |  |  |
|--|--|
| <input type="checkbox"/> Analyze and attribute expenditure | <input type="checkbox"/> Use serverless architecture       |
| <input type="checkbox"/> Match supply with demand          | <input type="checkbox"/> Democratize advanced technologies |

5. AWS Trusted Advisor provides insight regarding which five categories of an AWS account?

- |  |   |
|--|---|
| <input type="checkbox"/> Performance, cost optimization, access control, connectivity, security    | <input type="checkbox"/> Security, access control, high availability, performance, service limits   |
| <input type="checkbox"/> Performance, cost optimization, security, fault tolerance, service limits | <input type="checkbox"/> Security, fault tolerance, high availability, connectivity, service limits |

6. The AWS Well-Architected Framework is organized into how many pillars?

- |  |                            |
|--|----------------------------|
| <input type="checkbox"/> None of the above | <input type="checkbox"/> 4 |
| <input type="checkbox"/> 3                 | <input type="checkbox"/> 5 |

7. After you move to the AWS Cloud, you want to ensure that the right security settings are put in place. Which online tool can assist in security compliance?

- |  |  |
|--|--|
| <input type="checkbox"/> AWS Support         | <input type="checkbox"/> Amazon CloudWatch |
| <input type="checkbox"/> AWS Trusted Advisor | <input type="checkbox"/> Amazon Kinesis    |

8. Which of the following is a measure of your system's ability to provide functionality when desired by the user?

- |   |                                       |
|---|---------------------------------------|
| <input type="checkbox"/> Fault Tolerance        | <input type="checkbox"/> Availability |
| <input type="checkbox"/> Performance efficiency | <input type="checkbox"/> Reliability  |

9. What is defined as the ability for a system to remain operational even if some of the components of that system fail?

- |  |  |
|--|--|
| <input type="checkbox"/> High availability | <input type="checkbox"/> Fault tolerance |
| <input type="checkbox"/> High durability   |  |

10. Which of the following best describes a system that can withstand some measures of degradation, experiences minimal downtime, and requires minimal human intervention?

- |   |   |
|---|---|
| <input type="checkbox"/> Elastic        | <input type="checkbox"/> Scalable       |
| <input type="checkbox"/> Fault-tolerant | <input type="checkbox"/> High available |

11. Which statement about Amazon EC2 Auto Scaling is accurate?

- |   |   |
|---|---|
| <input type="checkbox"/> It requires the customer to purchase Reserved Instances.           | <input type="checkbox"/> It can only launch new Amazon EC2 instances based on a schedule.   |
| <input type="checkbox"/> It can launch Amazon EC2 instances in multiple Availability Zones. | <input type="checkbox"/> It can launch Amazon EC2 instances, but customers must terminate instances after they they are no longer needed. |

12. You detected that the demand on a fleet of Amazon EC2 instances in an Auto Scaling group increases by a set amount each day. Which type of scaling is the most appropriate for this scenario?

- |                                    |                                     |
|------------------------------------|-------------------------------------|
| <input type="checkbox"/> Manual    | <input type="checkbox"/> Dynamic    |
| <input type="checkbox"/> Scheduled | <input type="checkbox"/> Predictive |

13. A fleet of Amazon EC2 instances are launched in an Auto Scaling group behind an Elastic Load Balancing load balancer. The EC2 instances must maintain 50 percent average CPU utilisation. Which type of scaling provides the simplest way to achieve the requirement?

- |  |   |
|--|---|
| <input type="checkbox"/> Manual scaling          | <input type="checkbox"/> Simple scaling |
| <input type="checkbox"/> Target tracking scaling | <input type="checkbox"/> Step scaling   |

14. How do you vertically scale an Amazon RDS database?

- |   |   |
|---|---|
| <input type="checkbox"/> By changing the instance class | <input type="checkbox"/> By adding read replicas                    |
| <input type="checkbox"/> By sharding the database       | <input type="checkbox"/> By creating dedicated read and write nodes |

15. How do you horizontally scale an Amazon Aurora database?

- |   |   |
|---|---|
| <input type="checkbox"/> By increasing the size of the buffer cache configuration | <input type="checkbox"/> By changing the instance type      |
| <input type="checkbox"/> By creating Amazon CloudWatch alarms                     | <input type="checkbox"/> By adding Aurora Replica instances |

16. How does Amazon DynamoDB perform automatic scaling?

- |  |  |
|--|--|
| <input type="checkbox"/> It adds and removes database instances in response to changes in traffic.       | <input type="checkbox"/> It changes the instance type in response to changes in processing load. |
| <input type="checkbox"/> It adjusts the provisioned throughput capacity in response to traffic patterns. | <input type="checkbox"/> It adds read replicas in response to increased read demand.             |

17. A fleet of Amazon EC2 instances launch in an Auto Scaling group. The instances run an application that uses a custom protocol on TCP port 42000. Connections from client systems on the internet must balance across the instances. Which load balancing solution ensures the highest availability?

- |   |  |
|---|--|
| <input type="checkbox"/> Round-robin dns              | <input type="checkbox"/> Network Load Balancer     |
| <input type="checkbox"/> Instance-based load balancer | <input type="checkbox"/> Application Load Balancer |

18. Users in location A connect to an application in Region A. Users in location B connect to the same application in Region B. If the application in Region A becomes unhealthy, clients in location A must be redirected to the application in Region B. Which solution can meet this requirements?

- |  |   |
|--|---|
| <input type="checkbox"/> Use an Application Load Balancer with Amazon CloudWatch alarms.             | <input type="checkbox"/> Use geoproximity routing and a Network Load Balancer that is attached to both Regions. |
| <input type="checkbox"/> Use latency-based routing in Amazon Route 53 with Amazon CloudWatch alarms. | <input type="checkbox"/> Use geolocation routing with failover records in Amazon Route 53.                      |

19. A company must build a highly available website that uses server-side scripts to serve dynamic HTML. Which solution provides the highest availability for the least cost and complexity?

- |  |  |
|--|--|
| <input type="checkbox"/> A second web server is deployed in another Region. Amazon Route 53 uses failover routing for disaster recovery (DR).                                    | <input type="checkbox"/> Amazon S3 hosts the website. DNS name resolution points to the S3 bucket.   |
| <input type="checkbox"/> An Auto Scaling group launches Amazon EC2 instances, which are served by an Application Load Balancer. DNS name resolution points to the load balancer. | <input type="checkbox"/> An Auto Scaling group launches Amazon EC2 instances, which are served by a Network Load Balancer. Amazon Route 53 uses latency-based routing. |

20. You have created an AWS account for your own personal development and testing. You want your account to stay within the AWS Free Tier and to not generate unexpected costs. Which approach will work and requires the least effort?

- |   |  |
|---|--|
| <input type="checkbox"/> Create an Amazon CloudWatch metric to monitor account billing and limit it to \$0.                   | <input type="checkbox"/> Log in to the AWS Management Console each month and check your billing dashboard.                         |
| <input type="checkbox"/> Create an Amazon CloudWatch alarm to sent you an email message when the account billing exceeds \$0. | <input type="checkbox"/> Create a service control policy (SCP) to restrict all service that are not included in the AWS Free Tier. |