

ANSWERS

1. C. Reserved Instances provide cost savings when you can commit to running instances full time, such as to handle the base traffic. On-Demand Instances provide the flexibility to handle traffic spikes, such as on the last day of the month.
2. B. Spot Instances are a very cost-effective way to address temporary compute needs that are not urgent and are tolerant of interruption. That's exactly the workload described here. Reserved Instances are inappropriate for temporary workloads. On-Demand Instances are good for temporary workloads, but don't offer the cost savings of Spot Instances. Adding more queues is a non-responsive answer as it would not address the problem.
3. C, D. The Amazon EC2 instance ID will be assigned by AWS as part of the launch process. The administrator password is assigned by AWS and encrypted via the public key. The instance type defines the virtual hardware and the AMI defines the initial software state. You must specify both upon launch.
4. A, C. You can change the instance type only within the same instance type family, or you can change the Availability Zone. You cannot change the operating system nor the instance type family.
5. D. When there are multiple security groups associated with an instance, all the rules are aggregated.
6. A, B, E. These are the benefits of enhanced networking.
7. A, B, D. The other answers have nothing to do with networking.
8. C. Dedicated Instances will not share hosts with other accounts.
9. B, C. Instance stores are low-durability, high-IOPS storage that is included for free with the hourly cost of an instance.
10. A, C. There are no tapes in the AWS infrastructure. Amazon EBS volumes persist when the instance is stopped. The data is automatically replicated within an Availability Zone. Amazon EBS volumes can be encrypted upon creation and used by an instance in the same manner as if they were not encrypted.
11. B. There is no delay in processing when commencing a snapshot.
12. B. The volume is created immediately but the data is loaded lazily. This means that the volume can be accessed upon creation, and if the data being requested has not yet been restored, it will be restored upon first request.
13. A, C. B and D are incorrect because an instance store will not be durable and a magnetic volume offers an average of 100 IOPS. Amazon EBS-optimized instances reserve network bandwidth on the instance for IO, and Provisioned IOPS SSD volumes provide the highest consistent IOPS.
14. D. Bootstrapping runs the provided script, so anything you can accomplish in a script you can accomplish during bootstrapping.
15. C. The public half of the key pair is stored on the instance, and the private half can then be used to connect via SSH.
16. B, C. These are the possible outputs of VM Import/Export.
17. B, D. Neither the Windows machine name nor the Amazon EC2 instance ID can be resolved into an IP address to access the instance.
18. A. None of the other options will have any effect on the ability to connect.
19. C. A short period of heavy traffic is exactly the use case for the bursting nature of general-purpose SSD volumes—the rest of the day is more than enough time to build up enough IOPS credits to handle the nightly task. Instance stores are not durable, magnetic volumes cannot provide enough IOPS, and to set up a Provisioned IOPS SSD volume to handle the peak would mean spending money for more IOPS than you need.

20. B. There is a very small hourly charge for allocated elastic IP addresses that are not associated with an instance.
21. A, D. An Auto Scaling group must have a minimum size and a launch configuration defined in order to be created. Health checks and a desired capacity are optional.
22. B. The load balancer maintains two separate connections: one connection with the client and one connection with the Amazon EC2 instance.
23. D. Amazon CloudWatch metric data is kept for 2 weeks.
24. A. Only the launch configuration name, AMI, and instance type are needed to create an Auto Scaling launch configuration. Identifying a key pair, security group, and a block device mapping are optional elements for an Auto Scaling launch configuration.
25. B. You can use the Amazon CloudWatch Logs Agent installer on existing Amazon EC2 instances to install and configure the CloudWatch Logs Agent.
26. C. You configure your load balancer to accept incoming traffic by specifying one or more listeners.
27. D. The default Amazon EC2 instance limit for all regions is 20.
28. A. An SSL certificate must specify the name of the website in either the subject name or listed as a value in the SAN extension of the certificate in order for connecting clients to not receive a warning.
29. C. When Amazon EC2 instances fail the requisite number of consecutive health checks, the load balancer stops sending traffic to the Amazon EC2 instance.
30. D. Amazon CloudWatch metrics provide hypervisor visible metrics.
31. C. Auto Scaling is designed to scale out based on an event like increased traffic while being cost effective when not needed.
32. B. Auto Scaling will provide high availability across three Availability Zones with three Amazon EC2 instances in each and keep capacity above the required minimum capacity, even in the event of an entire Availability Zone becoming unavailable.
33. B, E, F. Auto Scaling responds to changing conditions by adding or terminating instances, launches instances from an AMI specified in the launch configuration associated with the Auto Scaling group, and enforces a minimum number of instances in the min-size parameter of the Auto Scaling group.
34. D. A, B, and C are all true statements about launch configurations being loosely coupled and referenced by the Auto Scaling group instead of being part of the Auto Scaling group.
35. A, C. An Auto Scaling group may use On-Demand and Spot Instances. An Auto Scaling group may not use already stopped instances, instances running someplace other than AWS, and already running instances not started by the Auto Scaling group itself.
36. A, F. Amazon CloudWatch has two plans: basic, which is free, and detailed, which has an additional cost. There is no ad hoc plan for Amazon CloudWatch.
37. A, C, D. An Elastic Load Balancing health check may be a ping, a connection attempt, or a page that is checked.
38. B, C. When connection draining is enabled, the load balancer will stop sending requests to a deregistered or unhealthy instance and attempt to complete in-flight requests until a connection draining timeout period is reached, which is 300 seconds by default.
39. B, E, F. Elastic Load Balancing supports Internet-facing, internal, and HTTPS load balancers.
40. B, D, E. Auto Scaling supports maintaining the current size of an Auto Scaling group using four plans: maintain current levels, manual scaling, scheduled scaling, and dynamic scaling.