QUESTION 46
A company's website runs on Amazon EC2 instances behind an Application Load Balancer (ALB).
The website has a mix of dynamic and static content Users around the globe are reporting that the website is slow.
Which set of actions will improve website performance for users worldwide?

A. Create an Amazon CloudFront distribution and configure the ALB as an origin.
   Then update the Amazon Route 53 record to point to the CloudFront distribution.
B. Create a latency-based Amazon Route 53 record for the ALB.
   Then launch new EC2 instances with larger instance sizes and register the instances with the ALB.
C. Launch nev. EC2 instances hosting the same web application in different Regions closer to the users.
   Then register the instances with the same ALB using cross-Region VPC peering.
D. Host the website in an Amazon S3 bucket in the Regions closest to the users and delete the ALB and EC2 instances.
   Then update an Amazon Route 53 record to point to the S3 buckets.

Answer: B

QUESTION 47
A company wants to migrate a high performance computing (HPC) application and data from on- premises to the AWS Cloud.
The company uses tiered storage on premises with hot high-performance parallel storage to support the application during periodic runs of the application and more economical cold storage to hold the data when the application is not actively running.
Which combination of solutions should a solutions architect recommend to support the storage needs of the application? (Select TWO)

A. Amazon S3 for cold data storage
B. Amazon EFS for cold data storage
C. Amazon S3 for high-performance parallel storage
D. Amazon FSx for Lustre for high-performance parallel storage
E. Amazon FSx for Windows for high-performance parallel storage

Answer: AD

QUESTION 48
A company has on-premises servers running a relational database.
The current database serves high read traffic for users in different locations.
The company wants to migrate to AWS with the least amount of effort.
The database solution should support disaster recovery and not affect the company's current traffic flow.
Which solution meets these requirements?

A. Use a database in Amazon RDS with Multi-AZ and at least one read replica
B. Use a database in Amazon RDS with Multi-AZ and at least one standby replica
C. Use databases hosted on multiple Amazon EC2 instances in different AWS Regions
D. Use databases hosted on Amazon EC2 instances behind an Application Load Balancer in different Availability Zones

Answer: C

QUESTION 49
A media streaming company collects real-time data and stores it in a disk-optimized database system.
The company is not getting the expected throughput and wants an in-memory database storage solution that performs faster and provides high availability using data replication.
Which database should a solutions architect recommend'?

A. Amazon RDS for MySQL
B. Amazon RDS for PostgreSQL
C. Amazon ElastiCache for Redis
D. Amazon ElastiCache for Memcached

Answer: B

QUESTION 50
A company's application is running on Amazon EC2 instances within an Auto Scaling group behind an Elastic Load Balancer.
Based on the application's history, the company anticipates a spike in traffic during a holiday each year.
A solutions architect must design a strategy to ensure that the Auto Scaling group proactively increases capacity to minimize any performance impact on application users.
Which solution will meet these requirements?

A. Create an Amazon CloudWatch alarm to scale up the EC2 instances when CPU utilization exceeds 90%
B. Create a recurring scheduled action to scale up the Auto Scaling group before the expected period of peak demand
C. Increase the minimum and maximum number of EC2 instances in the Auto Scaling group during the peak demand period
D. Configure an Amazon Simple Notification Service (Amazon SNS) notification to send alerts when there are auto scaling EC2_INSTANCE_LAUNCH events

Answer: A

QUESTION 51
A company has a two-tier application architecture that runs in public and private subnets Amazon EC2 instances running the web application are in the public subnet and a database runs on the private subnet.
The web application instances and the database are running in a single Availability Zone (AZ).
Which combination of steps should a solutions architect take to provide high availability for this architecture? (Select TWO.)

A. Create new public and private subnets in the same AZ for high availability
B. Create an Amazon EC2 Auto Scaling group and Application Load Balancer spanning multiple AZs
C. Add the existing web application instances to an Auto Scaling group behind an Application Load Balancer
D. Create new public and private subnets in a new AZ Create a database using Amazon EC2 in one AZ
E. Create new public and private subnets in the same VPC each in a new AZ Migrate the database to an Amazon RDS multi-AZ deployment

Answer: DE

QUESTION 52
A financial services company has a web application that serves users in the United States and Europe.
The application consists of a database tier and a web server tier.
The database tier consists of a MySQL database hosted in us-east-1 Amazon Route 53 geoproximity routing is used to direct traffic to instances in the closest Region.
A performance review of the system reveals that European users are not receiving the same level of query performance as those in the United States.
Which changes should be made to the database tier to improve performance?

A. Migrate the database to Amazon RDS for MySQL.
   Configure Multi-AZ in one of the European Regions.
B. Migrate the database to Amazon DynamoDB.
   Use DynamoDB global tables to enable replication to additional Regions.
C. Deploy MySQL instances in each Region.
   Deploy an Application Load Balancer in front of MySQL to reduce the load on the primary instance.
D. Migrate the database to an Amazon Aurora global database in MySQL compatibility mode.
   Configure read replicas in one of the European Regions.

Answer: A

QUESTION 53
A solutions architect is tasked with transferring 750 TB of data from a network-attached file system located at a branch office to Amazon S3 Glacier.
The solution must avoid saturating the branch office's low-bandwidth internet connection.
What is the MOST cost-effective solution1?

A. Create a site-to-site VPN tunnel to an Amazon S3 bucket and transfer the files directly.
   Create a bucket policy to enforce a VPC endpoint.
B. Order 10 AWS Snowball appliances and select an S3 Glacier vault as the destination.
   Create a bucket policy to enforce a VPC endpoint.
C. Mount the network-attached file system to Amazon S3 and copy the files directly.
   Create a lifecycle policy to transition the S3 objects to Amazon S3 Glacier.
D. Order 10 AWS Snowball appliances and select an Amazon S3 bucket as the destination.
   Create a lifecycle policy to transition the S3 objects to Amazon S3 Glacier.

Answer: B

QUESTION 54
A company's production application runs online transaction processing (OLTP) transactions on an Amazon RDS MySQL DB instance.
The company is launching a new reporting tool that will access the same data.
The reporting tool must be highly available and not impact the performance of the production application
How can this be achieved'?

A. Create hourly snapshots of the production RDS DB instance.
B. Create a Multi-AZ RDS Read Replica of the production RDS DB instance.
C. Create multiple RDS Read Replicas of the production RDS DB instance.
   Place the Read Replicas in an Auto Scaling group.
D. Create a Single-AZ RDS Read Replica of the production RDS DB instance.
   Create a second Single-AZ RDS Read Replica from the replica.

Answer: B

QUESTION 55

A company allows its developers to attach existing 1AM policies to existing 1AM roles to enable faster experimentation and agility.
However the security operations team is concerned that the developers could attach the existing administrator policy, which would allow the developers to circumvent any other security policies.
How should a solutions architect address this issue?

A. Create an Amazon SNS topic to send an alert every time a developer creates a new policy
B. Use service control policies to disable IAM activity across all accounts in the organizational unit
C. Prevent the developers from attaching any policies and assign all 1AM duties to the security operations team
D. Set an IAM permissions boundary on the developer 1AM role that explicitly denies attaching the administrator policy

Answer: C

QUESTION 56
A user is storing a large number of objects on AWS S3. The user wants to implement the search functionality among the objects. How can the user achieve this?

A. Use the indexing feature of S3.
B. Tag the objects with the metadata to search on that.
C. Use the query functionality of S3.
D. Make your own DB system which stores the S3 metadata for the search functionality.

Answer: D
Explanation:
In Amazon Web Services, AWS S3 does not provide any query facility. To retrieve a specific object the user needs to know the exact bucket / object key. In this case it is recommended to have an own DB system which manages the S3 metadata and key mapping.
Reference: http://media.amazonwebservices.com/AWS_Storage_Options.pdf

QUESTION 57
After setting up a Virtual Private Cloud (VPC) network, a more experienced cloud engineer suggests that to achieve low network latency and high network throughput you should look into setting up a placement group. You know nothing about this, but begin to do some research about it and are especially curious about its limitations. Which of the below statements is wrong in describing the limitations of a placement group?

A. Although launching multiple instance types into a placement group is possible, this reduces the likelihood that the required capacity will be available for your launch to succeed.
B. A placement group can span multiple Availability Zones.
C. You can't move an existing instance into a placement group.
D. A placement group can span peered VPCs

Answer: B
Explanation:
A placement group is a logical grouping of instances within a single Availability Zone. Using placement groups enables applications to participate in a low-latency, 10 Gbps network. Placement groups are recommended for applications that benefit from low network latency, high network throughput, or both. To provide the lowest latency, and the highest packet-per-second network performance for your placement group, choose an instance type that supports enhanced networking.
Placement groups have the following limitations:
The name you specify for a placement group a name must be unique within your AWS account. A placement group can't span multiple Availability Zones. Although launching multiple instance types into a placement group is possible, this reduces the likelihood that the required capacity will be available for your launch to succeed. We recommend using the same instance type for all instances in a placement group. You can't merge placement groups. Instead, you must terminate the instances in one placement group, and then relaunch those instances into the other placement group. A placement group can span peered VPCs; however, you will not get full- bisection bandwidth between instances in

peered VPCs. For more information about VPC peering connections, see VPC Peering in the Amazon VPC User Guide. You can't move an existing instance into a placement group. You can create an AMI from your existing instance, and then launch a new instance from the AMI into a placement group.

Reference: http://docs.aws.amazon.com/AWSEC2/latest/UserGuide/placement-groups.html