Question 1

A DevOps engineer notices that all Amazon EC2 instances running behind an Application Load Balancer in an Auto Scaling group are failing to respond to user requests. The EC2 instances are also failing target group HTTP health checks.

Upon inspection, the engineer notices the application process was not running in any EC2 instances. There are a significant number of out of memory messages in the system logs. The engineer needs to improve the resilience of the application to cope with a potential application memory leak. Monitoring and notifications should be enabled to alert when there is an issue.

Which combination of actions will meet these requirements? {Select TWO.)

Options:

A- Change the Auto Scaling configuration to replace the instances when they fail the load balancer's health checks.

B- Change the target group health check HealthCheckIntervalSeconds parameter to reduce the interval between health checks.

C- Change the target group health checks from HTTP to TCP to check if the port where the application is listening is reachable.

D- Enable the available memory consumption metric within the Amazon CloudWatch dashboard for the entire Auto Scaling group. Create an alarm when the memory utilization is high. Associate an E. Amazon SNS topic to the alarm to receive notifications when the alarm goes off.

E- Use the Amazon CloudWatch agent to collect the memory utilization of the EC2 instances in the Auto Scaling group. Create an alarm when the memory utilization is high and associate an Amazon SNS topic to receive a notification.

Answer:

B, E

Question 2

A company plans to stop using Amazon EC2 key pairs for SSH access, and instead plans to use AWS Systems Manager Session Manager. To further enhance security, access to Session Manager must take place over a private network only.

Which combinations of actions will accomplish this? (Select TWO.)

Options:

A- Allow inbound access to TCP port 22 in all associated EC2 security groups from the VPC CIDR range.

B- Attach an IAM policy with the necessary Systems Manager permissions to the existing IAM instance profile.

C- Create a VPC endpoint for Systems Manager in the desired Region.

D- Deploy a new EC2 instance that will act as a bastion host to the rest of the EC2 instance fleet.

E- Remove any default routes in the associated route tables.

Answer:

B, C

Question 3

Question Type: MultipleChoice

A development team manually builds an artifact locally and then places it in an Amazon S3 bucket. The application has a local cache that must be cleared when a deployment occurs. The team executes a command to do this, downloads the artifact from Amazon S3, and unzips the artifact to complete the deployment.

A DevOps team wants to migrate to a CI/CD process and build in checks to stop and roll back the deployment when a failure occurs. This requires the team to track the progression ot the deployment.

Which combination of actions will accomplish this? (Select THREE.)

Options:

A- Allow developers to check the code into a code repository. Using Amazon CloudWatch Events, on every pull into master, trigger an AWS Lambda function to build the artifact and store it in Amazon

B- Create a custom script to clear the cache. Specify the script in the BeforeInstall lifecycle hook in the AppSpec file.

C- Create user data for each Amazon EC2 instance that contains the clear cache script. Once deployed, test the application. If it is not successful, deploy it again.

D- Set up AWS CodePipeline to deploy the application. Allow developers to check the code into a code repository as a source for the pipeline.

E- Use AWS CodeBuild to build the artifact and place it in Amazon S3. Use AWS CodeDeploy to deploy the artifact to Amazon EC2 instances.

F- Use AWS Systems Manager to fetch the artifact from Amazon S3 and deploy it to all the instances.

Answer:

A, D, E

Question 4

Question Type: **MultipleChoice**

A company's application is running on Amazon EC2 instances in an Auto Scaling group. A DevOps engineer needs to ensure there are at least four application servers running at all times. Whenever an update has to be made to the application, the engineer creates a new AMI with the updated configuration and updates the AWS CloudFormation template with the new AMI ID. After the stack update finishes, the engineer manually terminates the old instances one by one. verifying that the new instance is operational before proceeding. The engineer needs to automate this process.

Which action will allow for the LEAST number of manual steps moving forward?

Options:

A- Update the CloudFormation template to include the UpdatePolicy attribute with the AutoScalingRollingUpdate policy.

B- Update the CloudFormation template to include the UpdatePolicy attribute with the AutoScalingReplacingUpdate policy.

C- Use an Auto Scaling lifecycle hook to verify that the previous instance is operational before allowing the DevOps engineer's selected instance to terminate.

D- Use an Auto Scaling lifecycle hook to confirm there are at least four running instances before allowing the DevOps engineer's selected instance to terminate.

Answer:

A

Question 5

Question Type: MultipleChoice

A DevOps engineer has automated a web service deployment using AWS CodePipelme with the following steps:

* An AWS CodeBuild project compiles the deployment artifact and runs unit tests.

* An AWS CodeDeploy deployment group deploys the web service to Amazon EC2 instances in the staging environment.

* A CodeDeploy deployment group deploys the web service to EC2 instances in the production environment

The quality assurance (QA) team has asked for permission to inspect the build artifact before the deployment to the production environment occurs. The OA team wants to run an internal automated penetration testing tool (invoked using a REST API call) to run some manual tests.

Which combination of actions will fulfill this request? (Select TWO.)

Options:

A- Insert a manual approval action between the test and deployment actions of Jtue pipeline.

B- Modify the buildspec.yml file for the compilation stage to require manual approval before completion.

C- Update the CodeDeploy deployment group so it requires manual approval to proceed

D- Update the pipeline to directly trigger the REST API for the automated penetration testing tool.

E- Update the pipeline to invoke a Lambda function that triggers the REST API for the automated penetration testing tool.

Answer:

B, D

Question 6

A law firm is running a web application on AWS. The system manages legal documents uploaded by users, and stores the documents in Amazon S3. Users have complained that file uploads are taking too long and there are timeouts during peak usage. A DevOps engineer found that web servers are managing concurrent uploads and are overloaded.

Which actions should be taken to troubleshoot the issue in the MOST cost-effective manner?

Options:

A- Create an AWS CloudFront distribution in front of the web servers, and modify the application to upload to Amazon S3 using S3 Transfer Acceleration.

B- Modify the application so the browser uses a signed URL to directly upload to Amazon S3 using multipart uploads.

C- Create an AWS CloudFront distribution in front of the web servers, and modify the application to store files in Amazon EFS in the Max I/O performance mode.

D- Place the web servers in an Amazon EC2 Auto Scaling group to include Spot Instances and modify the application to upload to Amazon S3 using multipart uploads.

Answer:

A

Question 7

A company is using Amazon EC2 for various workloads. Company policy requires that instances be managed centrally to standardize configurations. These configurations include standard logging, metrics, security assessments, and weekly patching.

How can the company meet these requirements? (Select THREE.)

Options:

A- Use AWS Config to ensure all EC2 instances are managed by Amazon Inspector.

B- Use AWS Config to ensure all EC2 instances are managed by AWS Systems Manager.

C- Use AWS Systems Manager to install and manage Amazon Inspector, Systems Manager Patch Manager, and the Amazon CloudWatch agent on all instances.

D- Use Amazon Inspector to install and manage AWS Systems Manager, Systems Manager Patch Manager, and the Amazon CloudWatch agent on all instances.

E- Use AWS Systems Manager maintenance windows with Systems Manager Run Command to schedule Systems Manager Patch Manager tasks. Use the Amazon CloudWatch agent to schedule Amazon Inspector assessment runs.

F- Use AWS Systems Manager maintenance windows with Systems Manager Run Command to schedule Systems Manager Patch Manager tasks. Use Amazon CloudWatch Events to schedule Amazon Inspector assessment runs.

Question 8

Question Type: **MultipleChoice**

A DevOps engineer is deploying a new version of a company's application in an AWS CodeDeploy deployment group associated with its Amazon EC2 instances. After some time, the deployment fails. The engineer realizes that all the events associated with the specific deployment ID are in a Skipped status, and code was not deployed in the instances associated with the deployment group.

What are valid reasons for this failure? (Select TWO.)

Options:

A- The networking configuration does not allow the EC2 instances to reach the internet via a NAT gateway or internet gateway, and the CodeDeploy endpoint cannot be reached.

B- The IAM user who triggered the application deployment does not have permission to interact with the CodeDeploy endpoint.

C- The target EC2 instances were not properly registered with the CodeDeploy endpoint.

D- An instance profile with proper permissions was not attached to the target EC2 instances.

D- The appspec.yrnl file was not included in the application revision.

Answer:

B, D, D

Question 9

Question Type: MultipleChoice

A DevOps engineer is architecting a continuous development strategy for a company's software as a service (SaaS) web application running on AWS. For application and security reasons, users subscribing to this application are distributed across multiple Application Load Balancers (ALBs), each of which has a dedicated Auto Scaling group and fleet of Amazon EC2 instances. The application does not require a build stage, and when it is committed to AWS CodeCommit, the application must trigger a simultaneous deployment to all ALBs. Auto Scaling groups, and EC2 fleets.

Which architecture will meet these requirements with the LEAST amount of configuration?

Options:

A- Create a single AWS CodePipeline pipeline that deploys the application in parallel using unique AWS CodeDeploy applications and

deployment groups created for each ALB-Auto Scaling group pair.

B- Create a single AWS CodePipeline pipeline that deploys the application using a single AWS CodeDeploy application and single deployment group.

C- Create a single AWS CodePipeline pipeline that deploys the application in parallel using a single AWS CodeDeploy application and unique deployment group for each ALB-Auto Scaling group pair.

D- Create an AWS CodePipeline pipeline for each ALB-Auto Scaling group pair that deploys the application using an AWS CodeDeploy application and deployment group created for the same ALB-Auto Scaling group pair.

Answer:

C