# AZ-400 Sample Questions for .NET and DevOps on Azure

## Question 1

You are setting up a CI/CD pipeline in Azure DevOps for a .NET Core application. You need to ensure that the application is compiled, tested, and deployed automatically to an Azure Web App. Which of the following tasks should you add to your Azure DevOps pipeline? (Select three)

* A. Use the `Use .NET Core` task to specify the required SDK version.
* B. Use the `NuGet restore` task to install dependencies.
* C. Use the `Docker task` to build a Docker image of the application.
* D. Use the `dotnet build` task to compile the application.
* E. Use the `Azure SQL Database Deployment` task to deploy the Web App.
* F. Use the `Azure App Service Deploy` task to publish the application.

\*\*Answer:\*\* A, B, D, F

\*\*Explanation:\*\* You need to use the correct tasks for a .NET Core build pipeline, including specifying the SDK version, restoring dependencies, building the application, running tests, and deploying to Azure.

## Question 2

You are developing a .NET Core application that will be deployed using a feature flag strategy. You want to control the feature rollout without redeploying the application. Which service should you use in Azure DevOps?

* A. Azure Key Vault
* B. Azure Feature Manager
* C. Azure App Configuration
* D. Azure DevTest Labs

\*\*Answer:\*\* C

\*\*Explanation:\*\* Azure App Configuration allows you to manage feature flags dynamically in a .NET Core application.

## Question 3

You have deployed a .NET 6 Web API on Azure App Service. Users report slow responses in production. Which Azure tool should you use to diagnose performance issues?

* A. Azure Monitor
* B. Azure Application Insights
* C. Azure Log Analytics
* D. Azure Security Center

\*\*Answer:\*\* B

\*\*Explanation:\*\* Azure Application Insights provides detailed telemetry, performance monitoring, and request tracking for .NET applications.

## Question 4

Your team wants to enforce security checks in your CI/CD pipeline by scanning .NET code for vulnerabilities before deployment. Which tool should you integrate into your Azure DevOps pipeline?

* A. SonarQube
* B. OWASP ZAP
* C. Postman
* D. Azure Key Vault

\*\*Answer:\*\* A

\*\*Explanation:\*\* SonarQube is commonly used for static code analysis and security scanning in .NET applications.

## Question 5

You need to deploy a .NET application and its SQL Server database infrastructure in an automated way using Infrastructure as Code (IaC). Which tool should you use?

* A. ARM Templates
* B. Azure Bicep
* C. Terraform
* D. All of the above

\*\*Answer:\*\* D

\*\*Explanation:\*\* ARM Templates, Bicep, and Terraform all support deploying .NET applications and SQL Server infrastructure in Azure.

## Question 6

Your team is developing a .NET Core API and wants to containerize it for deployment using Azure Kubernetes Service (AKS). What should you do first?

* A. Create a Dockerfile and add it to the .NET Core project
* B. Install Helm charts in AKS
* C. Use an Azure Function instead of AKS
* D. Enable Always On in Azure App Service

\*\*Answer:\*\* A

\*\*Explanation:\*\* The first step in containerizing a .NET application is to create a Dockerfile that defines how the application should be built and run inside a container.

## Question 7

You are deploying a .NET 7 application that needs to connect to an Azure SQL Database. The connection string should not be stored in code or configuration files. Which Azure service should you use?

* A. Azure DevOps Library
* B. Azure Key Vault
* C. Azure Storage Account
* D. Azure Active Directory

\*\*Answer:\*\* B

\*\*Explanation:\*\* Azure Key Vault is the recommended way to securely store and retrieve sensitive information like database connection strings.

## Question 8

You want to implement a blue-green deployment strategy for a .NET application hosted in Azure Kubernetes Service (AKS). Which two steps should you take? (Select two)

* A. Deploy a second instance of the application in a separate environment.
* B. Delete the old application version immediately after deploying the new version.
* C. Use an Azure Traffic Manager profile to switch traffic between versions.
* D. Use feature flags to switch between old and new versions.

\*\*Answer:\*\* A, C

\*\*Explanation:\*\* Blue-green deployment requires maintaining two separate environments, with traffic switching done via Traffic Manager or Load Balancers.