

MCQ

1. You are configuring project metrics for dashboards in Azure DevOps. You need to configure a chart widget that measures the elapsed time to complete work items once they become active. Which of the following is the widget you should use?
 - a. Cumulative Flow Diagram
 - b. Burnup
 - c. Cycle time**
 - d. Burndown
2. You need to consider the underlined segment to establish whether it is accurate. The Burnup widget measures the elapsed time from creation of work items to their completion. Select "No adjustment required" if the underlined segment is accurate. If the underlined segment is inaccurate, select the accurate option.
 - a. No adjustment required.
 - b. Lead time**
 - c. Test results trend
 - d. Burndown
3. You are making use of Azure DevOps manage build pipelines, and also deploy pipelines. The development team is quite large, and is regularly added to. You have been informed that the management of users and licenses must be automated when it can be. Which of the following is a task that can't be automated?
 - a. Group membership changes
 - b. License assignment
 - c. Assigning entitlements
 - d. License procurement**
4. You have been tasked with strengthening the security of your team's development process. You need to suggest a security tool type for the Continuous Integration (CI) phase of the development process. Which of the following is the option you would suggest?
 - a. Penetration testing
 - b. Static code analysis**
 - c. Threat modeling
 - d. Dynamic code analysis
5. Your company is currently making use of Team Foundation Server 2013 (TFS 2013), but intend to migrate to Azure DevOps. You have been tasked with supplying a migration approach that allows for the preservation of Team Foundation Version Control changesets dates, as well as the changes dates of work items revisions. The approach should also allow for the migration of all TFS artifacts, while keeping migration effort to a minimum. You have suggested upgrading TFS to the most recent RTW release. Which of the following should also be suggested?
 - a. Installing the TFS kava SDK
 - b. Using the TFS Database Import Service to perform the upgrade.**
 - c. Upgrading PowerShell Core to the latest version.
 - d. Using the TFS Integration Platform to perform the upgrade.
6. You are currently developing a project for a client that will be managing work items via Azure DevOps. You want to make sure that the work item process you use for

the client allows for requirements, change requests, risks, and reviews to be tracked. Which of the following is the option you would choose?

- a. Basic
 - b. Agile
 - c. Scrum
 - d. CMMI**
7. You need to consider the underlined segment to establish whether it is accurate. To compile an Internet Information Services (IIS) web application that runs docker, you should use a Default build agent pool. Select "No adjustment required" if the underlined segment is accurate. If the underlined segment is inaccurate, select the accurate option.
- a. No adjustment required.
 - b. Hosted Windows Container
 - c. Hosted**
 - d. Hosted macOS
8. Your company has an Azure DevOps environment that can only be accessed by Azure Active Directory users. You are instructed to make sure that the Azure DevOps environment can only be accessed from devices connected to the company's on-premises network. Which of the following actions should you take?
- a. Assign the devices to a security group.
 - b. Create a GPO.
 - c. Configure Security in Project Settings from Azure DevOps.
 - d. Configure conditional access in Azure Active Directory.**
9. You are making use of Azure DevOps to configure Azure Pipelines for project, named PROJ-01. You are preparing to use a version control system that allows for source code to be stored on a managed Windows server located on the company network. Which of the following is the version control system you should use?
- a. Github Enterprise**
 - b. Bitbucket cloud
 - c. Github Professional
 - d. Git in Azure Repos
10. You need to consider the underlined segment to establish whether it is accurate. When moving to Azure DevOps, JIRA must be replaced with the build pipelines Azure DevOps service. Select "No adjustment required" if the underlined segment is accurate. If the underlined segment is inaccurate, select the accurate option.
- a. No adjustment required.
 - b. repos
 - c. release pipelines**
 - d. boards
11. You scan a Node.js application using WhiteSource Bolt. The scan finds numerous libraries with invalid licenses, but are only used during development. You have to make sure that only production dependencies are scanned by WhiteSource Bolt. Which of the following is a command you should run?
- a. npm edit
 - b. npm publish
 - c. npm install**

- d. npm update
12. You are currently defining a release strategy for an app, named APP-01. The strategy should allow you to keep the time it takes to deploy new releases of the app to a minimum. The strategy should also allow you to roll back in the shortest time required. Which of the following is the release strategy you should use?
- a. Red/Black deployment**
 - b. Rolling deployment
 - c. "Big Bang" deployment
 - d. Canary deployment
13. Your company hosts a web application in Azure, and makes use of Azure Pipelines for managing the build and release of the application. When stakeholders report that system performance has been adversely affected by the most recent releases, you configure alerts in Azure Monitor. You are informed that new releases must satisfy specified performance baseline conditions in the staging environment before they can be deployed to production. You need to make sure that releases not satisfying the performance baseline are prevented from being deployed. Which of the following actions should you take?
- a. You should make use of a branch control check.
 - b. You should make use of an alert trigger.
 - c. You should make use of a gate.**
 - d. You should make use of an approval check.
14. You need to consider the underlined segment to establish whether it is accurate. To deploy an application to a number of Azure virtual machines, you should create a universal group. Select "No adjustment required" if the underlined segment is accurate. If the underlined segment is inaccurate, select the accurate option.
- a. No adjustment required.
 - b. security
 - c. deployment**
 - d. resource
15. You intend to make use of Azure Artifacts to share packages that you wrote, tested, validated, and deployed. You want to use a solitary feed to release several builds of each package. You have to make sure that the release of packages that are in development is restricted. Which of the following actions should you take?
- a. You should make use of static code analysis.
 - b. You should make use of views.
 - c. You should make use of dynamic code analysis.
 - d. You should make use of upstream sources.**
16. You need to consider the underlined segment to establish whether it is accurate. To find when common open source libraries are added to the code base, you should add Jenkins to the build pipeline. Select "No adjustment required" if the underlined segment is accurate. If the underlined segment is inaccurate, select the accurate option.
- a. No adjustment required.
 - b. SourceGear Vault
 - c. WhiteSource**
 - d. OWASP ZAP

17. Your company has an Azure DevOps project, which includes a build pipeline that makes use of roughly fifty open source libraries. You have been tasked with making sure that you are able to scan project for common security weaknesses in the open source libraries. Which of the following actions should you take?
- a. You should create a build task and use the WhiteSource Bolt service.**
 - b. You should create a deployment task and use the WhiteSource Bolt service.
 - c. You should create a build task and use the Chef service.
 - d. You should create a deployment task and use the Chef service.
18. You need to consider the underlined segment to establish whether it is accurate. Black Duck can be used to make sure that all the open source libraries conform to your company's licensing criteria. Select "No adjustment required" if the underlined segment is accurate. If the underlined segment is inaccurate, select the accurate option.
- a. No adjustment required.**
 - b. Maven
 - c. Bamboo
 - d. CMAKE
19. You have created an Azure DevOps project for a new application that will be deployed to a number of Windows Server 2016 Azure virtual machines. You are preparing a deployment solution that allows for the virtual machines to maintain a uniform configuration, and also keep administrative effort with regards to configuring the virtual machines to a minimum. Which of the following should be part of your solution? (Choose two.)
- a. Azure Resource Manager templates**
 - b. The PowerShell Desired State Configuration (DSC) extension for Windows**
 - c. Azure pipeline deployment groups
 - d. The Custom Script Extension for Windows**
 - e. Azure pipeline stage templates
20. Your company has an application that contains a number of Azure App Service web apps and Azure functions. You would like to view recommendations with regards to the security of the web apps and functions. You plan to navigate to Compute and Apps to achieve your goal. Which of the following should you access to make use of Compute and Apps?
- a. Azure Log Analytics
 - b. Azure Event Hubs
 - c. Azure Advisor
 - d. Azure Security Center**
21. You are in the process of building a mobile app aimed at Android and iOS devices. All work items and release cycles are managed via Azure DevOps. You want to make sure that crash reports for issue analysis is collected, and that beta releases are distributed to your testers. Also, you want to ensure that user feedback on the functionality of new apps is received. Which of the following must be part of your solution?

a. The Microsoft Test & Feedback extension.

- b. OWASP ZAP
- c. TFS Integration Platform
- d. Code Style

22. You manage an Azure web app that supports an e-commerce website. You need to increase the logging level when the web app exceeds normal usage patterns. The solution must minimize administrative overhead. Which two resources should you include in the solution? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

a. an Azure Automation runbook

b. an Azure Monitor alert that has a dynamic threshold

- c. an Azure Monitor alert that has a static threshold
- d. the Azure Monitor autoscale settings
- e. an Azure Monitor alert that uses an action group that has an email action

23. You have a Microsoft ASP.NET Core web app in Azure that is accessed worldwide. You need to run a URL ping test once every five minutes and create an alert when the web app is unavailable from specific Azure regions. The solution must minimize development time. What should you do?

a. Create an Azure Monitor Availability metric and alert.

b. Create an Azure Application Insights availability test and alert.

- c. Write an Azure function and deploy the function to the specific regions.
- d. Create an Azure Service Health alert for the specific regions.

24. You have a multi-tier application. The front end of the application is hosted in Azure App Service. You need to identify the average load times of the application pages. What should you use?

a. Azure Application Insights

- b. the activity log of the App Service
- c. the diagnostics logs of the App Service

d. Azure Advisor

25. You use Azure SQL Database Intelligent Insights and Azure Application Insights for monitoring. You need to write ad-hoc queries against the monitoring data. Which query language should you use?

a. Kusto Query Language (KQL)

- b. PL/pgSQL
- c. PL/SQL
- d. Transact-SQL

26. Your company creates a web application. You need to recommend a solution that automatically sends to Microsoft Teams a daily summary of the exceptions that occur in the application. Which two Azure services should you recommend? Each

correct answer presents part of the solution. NOTE: Each correct selection is worth one point.

a. Azure Logic Apps

b. Azure Pipelines

c. Microsoft Visual Studio App Center

d. Azure DevOps Project

e. Azure Application Insights

27. You have an Azure DevOps project named Project1 and an Azure subscription named Sub1. Sub1 contains an Azure virtual machine scale set named VMSS1. VMSS1 hosts a web application named WebApp1. WebApp1 uses stateful sessions. The WebApp1 installation is managed by using the Custom Script extension. The script resides in an Azure Storage account named sa1. You plan to make a minor change to a UI element of WebApp1 and to gather user feedback about the change. You need to implement limited user testing for the new version of WebApp1 on VMSS1. Which three actions should you perform? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

a. Modify the load balancer settings of VMSS1.

b. Redeploy VMSS1.

c. Upload a custom script file to sa1.

d. Modify the Custom Script extension settings of VMSS1.

e. Update the configuration of a virtual machine in VMSS1.

28. You are monitoring the health and performance of an Azure web app by using Azure Application Insights.

You need to ensure that an alert is sent when the web app has a sudden rise in performance issues and failures.

What should you use?

a. custom events

b. Application Insights Profiler

c. usage analysis

d. Smart Detection

e. Continuous export

29. You have a private GitHub repository.

You need to display the commit status of the repository on Azure Boards.

What should you do first?

a. Configure multi-factor authentication (MFA) for your GitHub account.

b. Add the Azure Pipelines app to the GitHub repository.

c. Add the Azure Boards app to the repository.

d. Create a GitHub action in GitHub.

30. You are integrating Azure Pipelines and Microsoft Teams.

You install the Azure Pipelines app in Microsoft Teams.

You have an Azure DevOps organization named Contoso that contains a project name Project1.

You subscribe to Project1 in Microsoft Teams.

You need to ensure that you only receive events about failed builds in Microsoft Teams.

What should you do first?

- a. From Microsoft Teams, run @azure pipelines subscribe <https://dev.azure.com/Contoso/Project1>.
- b. From Azure Pipelines, add a Publish Build Artifacts task to Project1.
- c. From Microsoft Teams, run @azure pipelines subscriptions.**
- d. From Azure Pipelines, enable continuous integration for Project1.

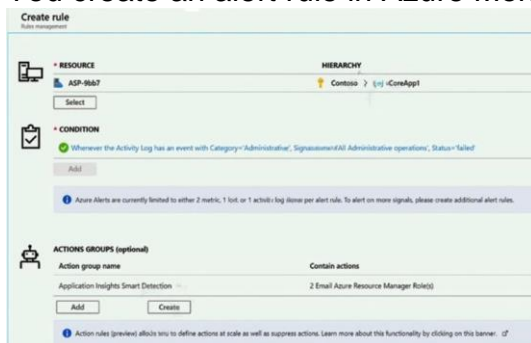
31. You have an Azure DevOps organization named Contoso.

You need to receive Microsoft Teams notifications when work items are updated.

What should you do?

- a. From Azure DevOps, configure a service hook subscription
- b. From Microsoft Teams, configure a connector**
- c. From the Microsoft Teams admin center, configure external access
- d. From Microsoft Teams, add a channel
- e. From Azure DevOps, install an extension

32. You create an alert rule in Azure Monitor as shown in the following exhibit.



Which action will trigger an alert?

- a. a failed attempt to delete the ASP-9bb7 resource**
- b. a change to a role assignment for the ASP-9bb7 resource
- c. a successful attempt to delete the ASP-9bb7 resource
- d. a failed attempt to scale up the ASP-9bb7 resource

33. You have a web app hosted on Azure App Service. The web app stores data in an Azure SQL database.

You need to generate an alert when there are 10,000 simultaneous connections to the database. The solution must minimize development effort.

Which option should you select in the Diagnostics settings of the database?

a. Send to Log Analytics

- b. Stream to an event hub
- c. Archive to a storage account

34. You have an Azure subscription that contains multiple Azure services. You need to send an SMS alert when scheduled maintenance is planned for the Azure services. Which two actions should you perform? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- a. Enable Azure Security Center.
- b. Create and configure an Azure Monitor alert rule.
- c. Create an Azure Service Health alert.**
- d. Create and configure an action group.**

35. You configure Azure Application Insights and the shared service plan tier for a web app.

You enable Smart Detection.

You confirm that standard metrics are visible in the logs, but when you test a failure, you do not receive a Smart Detection notification.

What prevents the Smart Detection notification from being sent?

- a. You must enable the Snapshot Debugger for the web app.
- b. Smart Detection uses the first 24 hours to establish the normal behavior of the web app.**
- c. The web app is configured to use the shared service plan tier.
- d. You must restart the web app before Smart Detection is enabled.

36. You configure an Azure Application Insights availability test.

You need to notify the customer services department at your company by email when availability is degraded.

You create an Azure logic app that will handle the email and follow up actions.

Which type of trigger should you use to invoke the logic app?

- a. an HTTPWebhook trigger
- b. an HTTP trigger
- c. a Request trigger**
- d. an ApiConnection trigger

37. You have an Azure DevOps organization named Contoso and an Azure subscription.

You use Azure DevOps to build a containerized app named App1 and deploy App1 to an Azure container instance named ACI1.

You need to restart ACI1 when App1 stops responding.

What should you do?

- a. Add a liveness probe to the YAML configuration of App1.**
- b. Add a readiness probe to the YAML configuration of App1.
- c. Use Connection Monitor in Azure Network Watcher.
- d. Use IP flow verify in Azure Network Watcher.

38. You have a multi-tier application that has an Azure Web Apps front end and an Azure SQL Database back end.
You need to recommend a solution to capture and store telemetry data. The solution must meet the following requirements:
- ☞ Support using ad-hoc queries to identify baselines.
 - ☞ Trigger alerts when metrics in the baseline are exceeded.
 - ☞ Store application and database metrics in a central location.
- What should you include in the recommendation?
- a. Azure Event Hubs
 - b. Azure SQL Database Intelligent Insights
 - c. Azure Application Insights
 - d. Azure Log Analytics**
39. You have an Azure DevOps organization named Contoso and an Azure subscription. The subscription contains an Azure virtual machine scale set named VMSS1 that is configured for autoscaling.
You use Azure DevOps to build a web app named App1 and deploy App1 to VMSS1. App1 is used heavily and has usage patterns that vary on a weekly basis.
You need to recommend a solution to detect an abnormal rise in the rate of failed requests to App1. The solution must minimize administrative effort.
What should you include in the recommendation?
- a. the Smart Detection feature in Azure Application Insights**
 - b. the Failures feature in Azure Application Insights
 - c. an Azure Service Health alert
 - d. an Azure Monitor alert that uses an Azure Log Analytics query
40. You have an Azure subscription that contains resources in several resource groups.
You need to design a monitoring strategy that will provide a consolidated view. The solution must support the following requirements:
- ☞ Support role-based access control (RBAC) by using Azure Active Directory (Azure AD) identities.
 - ☞ Include visuals from Azure Monitor that are generated by using the Kusto query language.
 - ☞ Support documentation written in markdown.
 - ☞ Use the latest data available for each visual.
- What should you use to create the consolidated view?
- a. Azure Monitor
 - b. Microsoft Power BI
 - c. Azure Data Explorer
 - d. Azure dashboards**
41. You are automating the testing process for your company.
You need to automate UI testing of a web application.
Which framework should you use?
- a. JaCoco
 - b. Selenium**
 - c. Xamarin.UITest
 - d. Microsoft.CodeAnalysis

42. You are building an ASP.NET Core application.

You plan to create an application utilization baseline by capturing telemetry data. You need to add code to the application to capture the telemetry data. The solution must minimize the costs of storing the telemetry data.

Which two actions should you perform? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point

- a. Add the `<InitialSamplingPercentage>99</InitialSamplingPercentage>` parameter to the `ApplicationInsights.config` file.
- b. From the code of the application, enable adaptive sampling.**
- c. From the code of the application, add Azure Application Insights telemetry.
- d. Add the `<MaxTelemetryItemsPerSecond>5</MaxTelemetryItemsPerSecond>` parameter to the `ApplicationInsights.config` file.**
- e. From the code of the application, disable adaptive sampling.

43. You have an Azure DevOps organization named Contoso and an Azure subscription. The subscription contains an Azure virtual machine scale set named VMSS1 and an Azure Standard Load Balancer named LB1. LB1 distributes incoming requests across VMSS1 instances.

You use Azure DevOps to build a web app named App1 and deploy App1 to VMSS1. App1 is accessible via HTTPS only and configured to require mutual authentication by using a client certificate.

You need to recommend a solution for implementing a health check of App1. The solution must meet the following requirements:

- ☞ Identify whether individual instances of VMSS1 are eligible for an upgrade operation.
- ☞ Minimize administrative effort.

What should you include in the recommendation?

- a. an Azure Load Balancer health probe
- b. Azure Monitor autoscale
- c. the Custom Script Extension
- d. the Application Health extension**

44. You have a build pipeline in Azure Pipelines that occasionally fails.

You discover that a test measuring the response time of an API endpoint causes the failures.

You need to prevent the build pipeline from failing due to the test.

Which two actions should you perform? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- a. Set Flaky test detection to Off.
- b. Clear Flaky tests included in test pass percentage.**
- c. Enable Test Impact Analysis (TIA).
- d. Manually mark the test as flaky.**
- e. Enable test slicing.

45. Your company uses the following resources:

- ☞ Windows Server 2019 container images hosted in an Azure Container Registry.

- ☞ Azure virtual machines that run the latest version of Ubuntu
- ☞ An Azure Log Analytics workspace
- ☞ Azure Active Directory (Azure AD)
- ☞ An Azure key vault

For which two resources can you receive vulnerability assessments in Azure Security Center? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- a. the Azure Log Analytics workspace
- b. the Azure key vault
- c. the Azure virtual machines that run the latest version of Ubuntu**
- d. Azure Active Directory (Azure AD)
- e. The Windows Server 2019 container images hosted in the Azure Container Registry.**

46. You use Azure Pipelines to manage build pipelines, GitHub to store source code, and Dependabot to manage dependencies.

You have an app named App1.

Dependabot detects a dependency in App1 that requires an update.

What should you do first to apply the update?

- a. Create a pull request.
- b. Approve the pull request.**
- c. Create a branch.
- d. Perform a commit.

47. You are designing a configuration management solution to support five apps hosted on Azure App Service. Each app is available in the following three environments: development, test, and production.

You need to recommend a configuration management solution that meets the following requirements:

- ☞ Supports feature flags
- ☞ Tracks configuration changes from the past 30 days
- ☞ Stores hierarchically structured configuration values
- ☞ Controls access to the configurations by using role-based access control (RBAC) permissions
- ☞ Stores shared values as key/value pairs that can be used by all the apps

Which Azure service should you recommend as the configuration management solution?

- a. Azure Cosmos DB
- b. Azure App Service
- c. Azure App Configuration**
- d. Azure Key Vault

48. You have a containerized solution that runs in Azure Container Instances. The solution contains a frontend container named App1 and a backend container named DB1. DB1 loads a large amount of data during startup.

You need to verify that DB1 can handle incoming requests before users can submit requests to App1.

What should you configure?

- a. a liveness probe
- b. a performance log
- c. a readiness probe**
- d. an Azure Load Balancer health probe

49. You are designing a strategy to monitor the baseline metrics of Azure virtual machines that run Windows Server. You need to collect detailed data about the processes running in the guest operating system.

Which two agents should you deploy? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- a. the Telegraf agent
- b. the Azure Log Analytics agent**
- c. the Azure Network Watcher Agent for Windows
- d. the Dependency agent**

50. You have several Azure Active Directory (Azure AD) accounts.

You need to ensure that users use multi-factor authentication (MFA) to access Azure apps from untrusted networks.

What should you configure in Azure AD?

- a. access reviews
- b. managed identities
- c. entitlement management
- d. conditional access**

51. You plan to provision a self-hosted Linux agent.

Which authentication mechanism should you use to register the self-hosted agent?

- a. personal access token (PAT)**
- b. SSH key
- c. Alternate credentials
- d. certificate

52. You are building a Microsoft ASP.NET application that requires authentication.

You need to authenticate users by using Azure Active Directory (Azure AD).

What should you do first?

- a. Assign an enterprise application to users and groups
- b. Create an app registration in Azure AD**
- c. Configure the application to use a SAML endpoint

- d. Create a new OAuth token from the application
 - e. Create a membership database in an Azure SQL database
53. You have an Azure DevOps organization named Contoso.
You need to recommend an authentication mechanism that meets the following requirements:
- ☞ Supports authentication from Git
 - ☞ Minimizes the need to provide credentials during authentication
- What should you recommend?
- a. personal access tokens (PATs) in Azure DevOps**
 - b. Alternate credentials in Azure DevOps
 - c. user accounts in Azure Active Directory (Azure AD)
 - d. managed identities in Azure Active Directory (Azure AD)
54. You have an application that consists of several Azure App Service web apps and Azure functions.
You need to assess the security of the web apps and the functions.
Which Azure feature can you use to provide a recommendation for the security of the application?
- a. Security & Compliance in Azure Log Analytics
 - b. Resource health in Azure Service Health
 - c. Smart Detection in Azure Application Insights
 - d. Compute & apps in Azure Security Center**
55. Your company has a project in Azure DevOps for a new web application.
The company identifies security as one of the highest priorities.
You need to recommend a solution to minimize the likelihood that infrastructure credentials will be leaked.
What should you recommend?
- a. Add a Run Inline Azure PowerShell task to the pipeline.
 - b. Add a PowerShell task to the pipeline and run Set-AzureKeyVaultSecret.
 - c. Add an Azure Key Vault task to the pipeline.
 - d. Add Azure Key Vault references to Azure Resource Manager templates.**
56. You create a Microsoft ASP.NET Core application.
You plan to use Azure Key Vault to provide secrets to the application as configuration data.
You need to create a Key Vault access policy to assign secret permissions to the application. The solution must use the principle of least privilege.
Which secret permissions should you use?
- a. List only
 - b. Get only**
 - c. Get and List
57. You are deploying a server application that will run on a Server Core installation of Windows Server 2019.
You create an Azure key vault and a secret.
You need to use the key vault to secure API secrets for third-party integrations.
Which three actions should you perform? Each correct answer presents part of the solution.
NOTE: Each correct selection is worth one point.

- a. Configure RBAC for the key vault.
- b. Modify the application to access the key vault.**
- c. Configure a Key Vault access policy.**
- d. Deploy an Azure Desired State Configuration (DSC) extension.
- e. Deploy a virtual machine that uses a system-assigned managed identity.**

58. You have an Azure DevOps organization named Contoso that contains a project named Project1.

You provision an Azure key vault named Keyvault1.

You need to reference Keyvault1 secrets in a build pipeline of Project1.

What should you do first?

- a. Add a secure file to Project1.
- b. Create an XAML build service.
- c. Create a variable group in Project1.**
- d. Configure the security policy of Contoso.

59. Your company uses Azure DevOps.

Only users who have accounts in Azure Active Directory can access the Azure DevOps environment.

You need to ensure that only devices that are connected to the on-premises network can access the Azure DevOps environment.

What should you do?

- a. Assign the Stakeholder access level to all users.
- b. In Azure Active Directory, configure risky sign-ins.
- c. In Azure DevOps, configure Security in Project Settings.
- d. In Azure Active Directory, configure conditional access.**

60. You have the following Azure policy.

```
if: {
  allOf: [
    {
      "field": "type",
      "equals": "Microsoft.Storage/storageAccounts"
    },
    {
      "field": "Microsoft.Storage/storageAccounts/supportsHttpsTrafficOnly",
      "notEquals": "true"
    }
  ]
},
then: {
  effect: "deny"
}
```

You assign the policy to the Tenant root group.

What is the effect of the policy?

- a. prevents all HTTP traffic to existing Azure Storage accounts
- b. ensures that all traffic to new Azure Storage accounts is encrypted**
- c. prevents HTTPS traffic to new Azure Storage accounts when the accounts are accessed over the Internet
- d. ensures that all data for new Azure Storage accounts is encrypted at rest

61. You have an Azure DevOps organization named Contoso, an Azure DevOps project named Project1, an Azure subscription named Sub1, and an Azure key vault named vault1.

You need to ensure that you can reference the values of the secrets stored in vault1 in all the pipelines of Project1. The solution must prevent the values from being stored in the pipelines.

What should you do?

- a. Create a variable group in Project1.**
- b. Add a secure file to Project1.
- c. Modify the security settings of the pipelines.
- d. Configure the security policy of Contoso.

62. You use WhiteSource Bolt to scan a Node.js application.

The WhiteSource Bolt scan identifies numerous libraries that have invalid licenses. The libraries are used only during development and are not part of a production deployment.

You need to ensure that WhiteSource Bolt only scans production dependencies. Which two actions should you perform? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- a. Run npm install and specify the --production flag.**
- b. Modify the WhiteSource Bolt policy and set the action for the licenses used by the development tools to Reassign.
- c. Modify the devDependencies section of the project's Package.json file.**
- d. Configure WhiteSource Bolt to scan the node_modules directory only.

63. You need to configure GitHub to use Azure Active Directory (Azure AD) for authentication.

What should you do first?

- a. Create a conditional access policy in Azure AD.
- b. Register GitHub in Azure AD.**
- c. Create an Azure Active Directory B2C (Azure AD B2C) tenant.
- d. Modify the Security settings of the GitHub organization.

64. You have an Azure DevOps project named Project1 and an Azure subscription named Sub1.

You need to prevent releases from being deployed unless the releases comply with the Azure Policy rules assigned to Sub1.

What should you do in the release pipeline of Project1?

- a. Add a deployment gate.**
- b. Modify the Deployment queue settings.
- c. Configure a deployment trigger.
- d. Create a pipeline variable.

65. You have an Azure DevOps project that contains a build pipeline. The build pipeline uses approximately 50 open source libraries.

You need to ensure that all the open source libraries comply with your company's licensing standards.

Which service should you use?

- a. Ansible
- b. Maven
- c. WhiteSource Bolt**
- d. Helm

66. You are designing the security validation strategy for a project in Azure DevOps.

You need to identify package dependencies that have known security issues and can be resolved by an update.

What should you use?

- a. Octopus Deploy
- b. Jenkins
- c. Gradle
- d. SonarQube**

67. You administer an Azure DevOps project that includes package feeds.

You need to ensure that developers can unlist and deprecate packages. The solution must use the principle of least privilege.

Which access level should you grant to the developers?

- a. Collaborator
- b. Contributor**
- c. Owner

68. Your company is concerned that when developers introduce open source libraries, it creates licensing compliance issues.

You need to add an automated process to the build pipeline to detect when common open source libraries are added to the code base.

What should you use?

- a. Microsoft Visual SourceSafe
- b. Code Style
- c. Black Duck**
- d. Jenkins

69. You have an Azure DevOps project that contains a build pipeline. The build pipeline uses approximately 50 open source libraries.

You need to ensure that all the open source libraries comply with your company's

licensing standards.

Which service should you use?

- a. NuGet
- b. Maven
- c. Black Duck**
- d. Helm

70. Your company develops an app for iOS. All users of the app have devices that are members of a private distribution group in Microsoft Visual Studio App Center.

You plan to distribute a new release of the app.

You need to identify which certificate file you require to distribute the new release from App Center.

Which file type should you upload to App Center?

- a. .cer
- b. .pfx
- c. .p12**
- d. .pvk

71. Your company is concerned that when developers introduce open source libraries, it creates licensing compliance issues.

You need to add an automated process to the build pipeline to detect when common open source libraries are added to the code base.

What should you use?

- a. OWASP ZAP
- b. Jenkins
- c. Code Style
- d. WhiteSource Bolt**

72. You plan to use a NuGet package in a project in Azure DevOps. The NuGet package is in a feed that requires authentication.

You need to ensure that the project can restore the NuGet package automatically.

What should the project use to automate the authentication?

- a. an Azure Automation account
- b. an Azure Artifacts Credential Provider**
- c. an Azure Active Directory (Azure AD) account that has multi-factor authentication (MFA) enabled
- d. an Azure Active Directory (Azure AD) service principal

73. You use Azure Pipelines to manage project builds and deployments.

You plan to use Azure Pipelines for Microsoft Teams to notify the legal team when a new build is ready for release.

You need to configure the Organization Settings in Azure DevOps to support Azure Pipelines for Microsoft Teams.
What should you turn on?

a. Third-party application access via OAuth

- b. Azure Active Directory Conditional Access Policy Validation
- c. Alternate authentication credentials
- d. SSH authentication

74. You have an existing project in Azure DevOps.
You plan to integrate GitHub as the repository for the project.
You need to ensure that Azure Pipelines runs under the Azure Pipelines identity.
Which authentication mechanism should you use?

- a. personal access token (PAT)
- b. GitHub App**
- c. Azure Active Directory (Azure AD)
- d. OAuth

75. You use Azure Artifacts to host NuGet packages that you create.
You need to make one of the packages available to anonymous users outside your organization. The solution must minimize the number of publication points.
What should you do?

- a. Change the feed URL of the package
- b. Create a new feed for the package**
- c. Promote the package to a release view.
- d. Publish the package to a public NuGet repository.**

76. You are designing the development process for your company.
You need to recommend a solution for continuous inspection of the company's code base to locate common code patterns that are known to be problematic.
What should you include in the recommendation?

- a. Microsoft Visual Studio test plans
- b. Gradle wrapper scripts
- c. SonarCloud analysis**
- d. the JavaScript task runner

77. During a code review, you discover many quality issues. Many modules contain unused variables and empty catch blocks.
You need to recommend a solution to improve the quality of the code.
What should you recommend?

- a. In a Grunt build task, select Enabled from Control Options.
- b. In a Maven build task, select Run PMD.**
- c. In a Xcode build task, select Use xcpretty from Advanced.
- d. In a Gradle build task, select Run Checkstyle.

78. Your development team is building a new web solution by using the Microsoft Visual Studio integrated development environment (IDE).

You need to make a custom package available to all the developers. The package must be managed centrally, and the latest version must be available for consumption in Visual Studio automatically.

Which three actions should you perform? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- a. Publish the package to a feed.**
- b. Create a new feed in Azure Artifacts.**
- c. Upload a package to a Git repository.
- d. Add the package URL to the Environment settings in Visual Studio.
- e. Add the package URL to the NuGet Package Manager settings in Visual Studio.**
- f. Create a Git repository in Azure Repos.

79. You use GitHub for source control.

A file that contains sensitive data is committed accidentally to the Git repository of a project.

You need to delete the file and its history from the repository.

Which two tools can you use? Each correct answer presents a complete solution.

NOTE: Each correct selection is worth one point.

- a. the git filter-branch command**
- b. BFG Repo-Cleaner**
- c. the git rebase command
- d. GitHub Desktop

80. Your company uses GitHub for source control. The company has a team that performs code reviews.

You need to automate the assignment of the code reviews. The solution must meet the following requirements:

- ☞ Prioritize the assignment of code reviews to team members who have the fewest outstanding assignments.
- ☞ Ensure that each team member performs an equal number of code reviews in any 30-day period.
- ☞ Prevent the assignment of code reviews to the team leader.

Which two actions should you perform? Each correct answer presents part of the

solution.

NOTE: Each correct selection is worth one point.

- a. Clear Never assign certain team members.
- b. Select If assigning team members, don't notify the entire team.
- c. Select Never assign certain team members.**
- d. Set Routing algorithm to Round robin.
- e. Set Routing algorithm to Load balance.**

81. During a code review, you discover quality issues in a Java application. You need to recommend a solution to detect quality issues including unused variables and empty catch blocks. What should you recommend?

- a. In a Maven build task, select Run PMD.**
- b. In an Xcode build task, select Use xcpretty from Advanced.
- c. In a Gulp build task, specify a custom condition expression.
- d. In a Grunt build task, select Enabled from Control Options.

82. Your company creates a web application. You need to recommend a solution that automatically sends to Microsoft Teams a dairy summary of the exceptions that occur m the application. Which two Azure services should you recommend? Each correct answer presents part of the solution. NOTE: Each correct selection is worth one point.

- a. Microsoft Visual Studio App Center
- b. Azure DevOps Project
- c. Azure Logic Apps**
- d. Azure Pipelines
- e. Azure Application Insights**

83. To resolve the current technical issue, what should you do to the Register-AzureRmAutomationDscNode command?

- a. Change the value of the ConfigurationMode parameter.**
- b. Replace the Register-AzureRmAutomationDscNode cmdlet with Register-AzureRmAutomationScheduledRunbook
- c. Add the AllowModuleOverwrite parameter.
- d. Add the DefaultProfile parameter.

84. Your company develops a client banking application that processes a large volume of data. Code quality is an ongoing issue for the company. Recently, the code quality has deteriorated because of an increase in time pressure on the development team. You need to implement static code analysis. During which phase should you use static code analysis?

- a. build
- b. production release**
- c. staging
- d. integration testing

85. During a code review, you discover many quality issues. Many modules contain unused variables and empty catch Modes. You need to recommend a solution to improve the quality o' the code. What should you recommend?

- a. In a Gradle build task, select Run Checkstyle.
- b. In an Xcode build task, select Use xcpretty from Advanced
- c. In a Grunt build task, select Enabled from Control Options.
- d. In a Maven build task, select Run PM**

86. Your company plans to use an agile approach to software development. You need to recommend an application to provide communication between members of the development team who work in locations around the world. The application must meet the following requirements:

- Provide the ability to isolate the members of efferent project teams into separate communication channels and to keep a history of the chats within those channels.
- Be available on Windows 10, Mac OS, iOS, and Android operating systems.
- Provide the ability to add external contractors and suppliers to projects.
- Integrate directly with Azure DevOps. What should you recommend?

- A. Octopus
- B. Bamboo
- C. Microsoft Project

D. Slack

87. Your company has a project in Azure DevOps for a new application. The application will be deployed to several Azure virtual machines that run Windows Server 2016. You need to recommend a deployment strategy for the virtual machines. The strategy must meet the following requirements:

- Ensure that the virtual machines maintain a consistent configuration.
- Minimize administrative effort to configure the virtual machines What should you include in the recommendation?

A. Deployment YAML and Azure pipeline stage templates

B. Azure Resource Manager templates and the Custom Script Extension for Windows

C. Azure Resource Manager templates and the PowerShell Desired State Configuration (DSC) extension for Windows

D. Deployment YAML and Azure pipeline deployment groups

88. You plan to use a NuGet package in a project in Azure DevOps. The NuGet package is in a feed that requires authentication. You need to ensure that the project can restore the NuGet package automatically. What should the project use to automate the authentication?

A. an Azure Automation account

B. an Azure Artifacts Credential Provider

C. an Azure Active Directory (Azure AD) account that has multi-factor authentication (MFA) enabled

D. an Azure Active Directory (Azure AD) service principal
D18912E1457D5D1DDCBD40AB3BF70D5D

89. You are designing a strategy to monitor the baseline metrics of Azure virtual machines that run Windows Server. You need to collect detailed data about the processes running in the guest operating system. Which two agents should you deploy? Each correct answer presents part of the solution. NOTE: Each correct selection is worth one point.

A. the Dependency agent

B. the Azure Network Watcher Agent for Windows

C. the Telegraf agent

D. the Azure Log Analytics agent

90. Your company has a project in Azure DevOps for a new web application. The company identifies security as one of the highest priorities. You need to recommend a solution to minimize the likelihood that infrastructure credentials will be leaked. What should you recommend?

a. Add a Run Inline Azure PowerShell task to the pipeline.

b. Add a PowerShell task to the pipeline and run Set-AzureKeyVaultSecret.

c. Add a Azure Key Vault task to the pipeline.

d. Add Azure Key Vault references to Azure Resource Manager templates.

91. You have a build pipeline in Azure Pipelines. You create a Slack App Integration. You need to send build notifications to a Slack channel named #Development. What should you do first?

a. Configure a service connection.

b. Create a service hook subscription.

c. Create a project-level notification.

d. Create a global notification.

92. You have a private distribution group that contains provisioned and unprovisioned devices. You need to distribute a new iOS application to the distribution group by using Microsoft Visual Studio App Center. What should you do?

a. Request the Apple ID associated with the user of each device.

b. Register the devices on the Apple Developer portal.

c. Create an active subscription in App Center Test.

d. Add the device owner to the organization in App Center.

93. Your company is concerned that when developers introduce open source Libraries, it creates licensing compliance issues. You need to add an automated process to the build pipeline to detect when common open source libraries are added to the code base. What should you use?

a. Code Style

b. Microsoft Visual SourceSafe

c. Black Duck

d. Jenkins

94. You are automating the build process for a Java-based application by using Azure DevOps. You need to add code coverage testing and publish the outcomes to the pipeline. What should you use?

a. Cobertura

b. Bullseye Coverage

c. MSTest

d. Coverlet

95. Your company has an Azure DevOps project, The source code for the project is stored in an on-premises repository and uses on an on-premises build server. You plan to use Azure DevOps to control the build process on the build server by using a self-hosted agent. You need to implement the self-hosted agent. You download and install the agent on the build server. Which two actions should you perform next? Each correct answer presents part of the solution.

a. From Azure, create a shared access signature (SAS).

b. From the build server, create a certificate, and then upload the certificate to Azure Storage.

c. From the build server, create a certificate, and then upload the certificate to Azure Key Vault.

d. From DevOps, create a personal access token (PAT).

e. From the build server, run config.cmd.

96. Your company develops an application named App1 that is deployed in production. As part of an application update, a new service is being added to App1. The new service requires access to an application named App2 that is currently in development. You need to ensure that you can deploy the update to App1 before App2 becomes available. You must be able to enable the service in App1 once App2 is deployed. What should you do?

a. Create a branch in the build.

b. Implement a branch policy.

c. Create a fork in the build.

d. Implement a feature flag.

97. You have an Azure DevOps project that contains a release pipeline and a Git repository. When a new code revision is committed to the repository, a build and release is triggered.

98. You need to ensure that release information for the pipeline is added automatically to the work items associated to the Git commit. What should you do?

a. Modify the Integrations options for the pipeline.

b. Modify the post-deployment conditions for the last stage of the pipeline.

c. Add an agentless job to the pipeline.

d. Modify the service hooks for the project.

99. You are designing the development process for your company. You need to recommend a solution for continuous inspection of the company's code base to locate common code patterns that are known to be problematic. What should you include in the recommendation?

- a. Microsoft Visual Studio test plans
 - b. Gradle wrapper scripts
 - c. SonarCloud analysis**
 - d. the JavaScript task runner
100. You use Azure Pipelines to manage build pipelines. GitHub to store source code, and Dependabot to manage dependencies. You have an app named App1. Dependabot detects a dependency in App1 that requires an update. What should you do first to apply the update?
- a. Perform a commit.
 - b. Create a pull request.
 - c. Approve the pull request**
 - d. Create a branch.
101. You need to configure GitHub to use Azure Active Directory (Azure AD) for authentication. What should you do first?
- a. Create a conditional access policy in Azure AD.
 - b. Modify the Security settings of the GitHub organization.
 - c. Create an Azure Active Directory B2C (Azure AD B2C) tenant.
 - d. Register GitHub in Azure AD.**
102. You have an Azure DevOps project named Project1 and an Azure subscription named Sub1. Sub1 contains an Azure SQL database named DB1. You need to create a release pipeline that uses the Azure SQL Database Deployment task to update DB1. Which artifact should you deploy?
- a. a BACPAC
 - b. a DACPAC**
 - c. an LDF file
 - d. an MDF file
103. You need to recommend a configuration management solution that meets the following requirements: Supports feature flags. Tracks configuration changes from the past 30 days Stores hierarchically structured configuration values Controls access to the configurations by using role-based access control (RBAC) permission Stores shared values as key/value pairs that can be used by all the apps. Which Azure service should you recommend as the configuration management solution?
- a. Azure Cosmos DB
 - b. Azure App Service
 - c. Azure App Configuration**
 - d. Azure Key Vault
104. You have a project in Azure DevOps. You have an Azure Resource Group deployment project in Microsoft Visual Studio that is checked in to the Azure DevOps project. You need to create a release pipeline that will deploy resources by using Azure Resource Manager templates. The solution must minimize administrative effort. Which task type should you include in the solution?
- a. Azure Cloud Service Deployment
 - b. Azure RM Web App Deployment
 - c. Azure PowerShell**

- d. Azure App Service Manage
105. You need to execute inline testing of an Azure DevOps pipeline that uses a Docker deployment model. The solution must prevent the results from being published to the pipeline. What should you use for the inline testing?
- a. a single stage Dockerfile
 - b. an Azure Kubernetes Service (AKS) pod
 - c. a multi-stage Dockerfile**
 - d. a Docker Compose file
106. Your team uses an agile development approach. You need to recommend a branching strategy for the team's Git repository. The strategy must meet the following requirements. Provide the ability to work on multiple independent tasks in parallel. Ensure that checked-in code remains in a releasable state always. Ensure that new features can be abandoned at any time. Encourage experimentation. What should you recommend?
- a. a single long-running branch
 - b. multiple long-running branches
 - c. a single fork per team member
 - d. a single-running branch with multiple short-lived topic branches**
107. You have an Azure DevOps organization named Contoso. You need to recommend an authentication mechanism that meets the following requirements:
- Supports authentication from Git
 - Minimizes the need to provide credentials during authentication
- What should you recommend?
- a. managed identities in Azure Active Directory (Azure AD)
 - b. personal access tokens (PATs) in Azure DevOps**
 - c. user accounts in Azure Active Directory (Azure AD)
 - d. Alternate credentials in Azure DevOps
108. You are designing an Azure DevOps strategy for your company's development team. You suspect that the team's productivity is low due to accumulate technical debt. You need to recommend a metric to assess the amount of the team's technical debt. What should you recommend?
- a. the number of code modules in an application
 - b. the number of unit test failures
 - c. the percentage of unit test failures
 - d. the percentage of overall time spent on rework**
109. Which branching strategy should you recommend for the investment planning applications suite?
- a. release isolation
 - b. main only
 - c. development isolation**
 - d. feature isolation
110. Your company creates a new Azure DevOps team.
D18912E1457D5D1DDCBD40AB3BF70D5D You plan to use Azure DevOps for sprint planning. You need to visualize the flow of your work by using an agile

methodology. Which Azure DevOps component should you use?

a. Kanban boards

- b. sprint planning
- c. delivery plans
- d. portfolio backlogs

111. You have an Azure DevOps organization named Contoso. You need to receive Microsoft Teams notifications when work items are updated. What should you do?

a. From Azure DevOp, configure a service hook subscription.

b. From Microsoft Teams, configure a connector.

- c. From Microsoft Teams, add a channel.
- d. From Azure DevOp, install an extension.
- e. From the Microsoft Teams admin center configure external access.

112. You plan to provision a self-hosted Linux agent. Which authentication mechanism should you use to register the self-hosted agent?

a. SSH key

b. personal access token (PAT)

- c. Alternate credentials
- d. certificate

113. You have an existing build pipeline in Azure Pipelines. You need to use incremental builds without purging the environment between pipeline executions. What should you use?

a. a File Transform task

b. a self-hosted agent

c. Microsoft-hosted parallel jobs

114. You are designing a build pipeline in Azure Pipelines. The pipeline requires a self-hosted agent. The build pipeline will run once daily and will take 30 minutes to complete. You need to recommend a compute type for the agent. The solution must minimize costs. What should you recommend?

a. Azure virtual machines

b. an Azure virtual machine scale set

- c. an Azure Kubernetes Service (AKS) cluster
- d. Azure Container Instances

115. You have an Azure DevOps project that contains a build pipeline. The build pipeline uses approximately 50 open source libraries. You need to ensure that all the open source libraries comply with your company's licensing standards. Which service should you use?

a. Ansible

b. Maven

c. WhiteSource Bolt

d. Helm

e. Black Duck

116. Your company builds a multi tier web application. You use Azure DevOps and host the production application on Azure virtual machines. Your team prepares an Azure Resource Manager template of the virtual machine that you will use to test

new features. You need to create a staging environment in Azure that meets the following requirements:

- Minimizes the cost of Azure hosting
- Provisions the virtual machines automatically
- Use* the custom Azure Resource Manager template to provision the virtual machines

What should you do?

a. In Azure DevOps, configure new tasks in the release pipeline to create and delete the virtual machines in Azure DevTest Labs.

- b. From Azure Cloud Shell, run Azure PowerShell commands to create and delete the new virtual machines in a staging resource group.
- c. In Azure DevOps, configure new tasks in the release pipeline to deploy to Azure Cloud Services.
- d. In Azure Cloud Shell, run Azure CLI commands to create and delete the new virtual machines in a staging resource group.

117. Your company plans to use an agile approach to software development. You need to recommend an application to provide communication between members of the development team who work in locations around the world. The application must meet the following requirements:

- Provide the ability to isolate the members of different project teams into separate communication channels and to keep a history of the chats within those channels.
- Be available on Windows 10, Mac OS, iOS, and Android operating systems.
- Provide the ability to add external contractors and suppliers to projects.
- Integrate directly with Azure DevOps.

What should you recommend?

- a. Octopus
- b. Bamboo
- c. Microsoft Project

d. Slack

118. Your company uses Azure DevOps for the build pipelines and deployment pipelines of Java based projects. You need to recommend a strategy for managing technical debt. Which two actions should you include in the recommendation? Each correct answer presents part of the solution. NOTE: Each correct selection is worth one point.

a. Integrate Azure DevOps and SonarQube.

b. Integrates Azure DevOps and Azure DevTest Labs.

c. Configure post-deployment approvals in the deployment pipeline.

d. Configure pre-deployment approvals in the deployment pipeline.

119. Your company has an on-premises Bitbucket Server that is used for Git-based source control. The server is protected by a firewall that blocks inbound Internet traffic. You plan to use Azure DevOps to manage the build and release processes

Which two components are required to integrate Azure DevOps and Bitbucket?
Each correct answer presents part of the solution. NOTE: Each correct selection is worth one point.

a. an External Git service connection

b. a Microsoft hosted agent

c. service hooks

d. a self-hosted agent

e. a deployment group

120. You have a multi-tier application that has an Azure Web Apps front end and an Azure SQL Database back end. You need to recommend a solution to capture and store telemetry data. The solution must meet the following requirements:

- Support using ad-hoc queries to identify baselines.
- Trigger alerts when metrics in the baseline are exceeded.
- Store application and database metrics in a central location

What should you include in the recommendation?

a. Azure Application Insights

b. Azure SQL Database Intelligent Insights

c. Azure Event Hubs

d. Azure Log Analytics

121. Your company hosts a web application in Azure. The company uses Azure Pipelines for the build and release management of the application. Stakeholders report that the past few releases have negatively affected system performance. You configure alerts in Azure Monitor. You need to ensure that new releases are only deployed to production if the releases meet defined performance baseline criteria in the staging environment first. What should you use to prevent the deployment of releases that fail to meet the performance baseline?

a. a trigger

b. an Azure function

c. a gate

d. an Azure Scheduler job

122. Your company is building a mobile app that targets Android devices and iOS devices. Your team uses Azure DevOps to manage all work items and release cycles. You need to recommend a solution to perform the following tasks:

- Collect crash reports for issue analysis
- Distribute beta releases to your testers.
- Get user feedback on the functionality of new apps.

What should you include in the recommendation?

a. Jenkins integration

b. Azure Application Insights widgets

c. the Microsoft Test & Feedback extension

d. Microsoft Visual Studio App Center integration

123. Your company has a hybrid cloud between Azure and Azure Stack. The company uses Azure DevOps for its CI/CD pipelines. Some applications are built by using Erlang and Hack. You need to ensure that Erlang and Hack are supported as part of the build strategy across the hybrid cloud. The solution must minimize management overhead. What should you use to execute the build pipeline?
- a. AzureDevOps self-hosted agents on Azure DevTest Labs virtual machines.
 - b. AzureDevOps self-hosted agents on virtual machine that run on Azure Stack**
 - c. AzureDevOps self-hosted agents on Hyper-V virtual machines
 - d. a Microsoft-hosted agent
124. Your company has a project in Azure DevOps for a new web application. The company uses Service Now for change management. You need to ensure that a change request is processed before any components can be deployed to the production environment. What are two ways to integrate into the Azure DevOps release pipeline? Each correct answer presents a complete solution. NOTE: Each correct selection is worth one point.
- a. Define a deployment control that invokes the Service Now SOAP API.**
 - b. Define a post deployment gate after the deployment to the QA stage.**
 - c. Define a deployment control that invokes the ServiceNow REST API.
 - d. Define a pre deployment gate before the deployment to the Prod stag.
125. You have a branch policy in a project in Azure DevOps. The policy requires that code always builds successfully. You need to ensure that a specific user can always merge change to the master branch, even if the code fails to compile. The solution must use the principle of least privilege. What should you do?
- a. From the Security setting of the repository, modify the access control for the user.
 - b. From the Security settings of the branch, modify the access control for the user.**
 - c. Add the user to the Build Administrators group,
 - d. Add the user to the Project Administrators group
126. You have an Azure Resource Manager template that deploys a multi-tier application. You need to prevent the user who performs the deployment from viewing the account credentials and connection strings used by the application. What should you use?
- a. an Azure Resource Manager parameter file
 - b. an Azure Storage table
 - c. an Appsettings.json files
 - d. Azure Key Vault**
 - e. a Web.config file
127. Your company uses a Git repository in Azure Repos to manage the source code of a web application. The master branch is protected from direct updates. Developers work on new features in the topic branches. Because of the high volume of requested features, it is difficult to follow the history of the changes to the master

branch. You need to enforce a pull request merge strategy. The strategy must meet the following requirements:

- Consolidate commit histories
- Merge tie changes into a tingle commit

Which merge strategy should you use in the branch policy?

- a. Git fetch
- b. no-fast-forward merge
- c. squash merge**
- d. fast-forward merge

128. Your company uses cloud-hosted Jenkins for builds. You need to ensure that Jenkins can retrieve source code from Azure Repos. Which three actions should you perform? Each correct answer presents part of the solution NOTE: Each correct answer selection is worth one point

- a. Add the Team Foundation Server (TFS) plug-in to Jenkins.**
- b. Create a personal access token m your Azure DevOps account.**
- c. Create a webhook in Jenkins.
- d. Add a domain to your Jenkins account.
- e. Create a service hook m Azure DevOps.**

129. You plan to share packages that you wrote, tested, validated, and deployed by using Azure Artifacts. You need to release multiple builds of each package by using a single feed. The solution must limit the release of packages that are in development. What should you use?

- a. global symbols
- b. local symbols
- c. upstream sources**
- d. views

130. You have 50 Node.js-based projects that you scan by using WhiteSource. Each project includes Package.json, Package-lock.json, and Npm-shrinkwrap.json files. You need to minimize the number of libraries reports by WhiteSource to only the libraries that you explicitly reference. What should you do?

- a. Configure the File System Agent plug in.
- b. Delete Package lock.json.
- c. Configure the Artifactory plug-in.
- d. Add a devDependencies section to Package-lock.json**

131. You use Azure SQL Database Intelligent Insights and Azure Application Insights foe monitoring. You need to write ad-hoc Queries against the monitoring data. Which Query language should you use?

- a. PL/pgSQL
- b. Transact-SQL
- c. Azure Log Analytics**
- d. PL/SQL

132. Your company uses Service Now for incident management. You develop an application that runs on Azure. The company needs to generate a ticket in Service Now when the application fails to authenticate. Which Azure Log Analytics solution should you use?
- a. Automation & Control
 - b. IT Service Management Connector (ITSM)**
 - c. Application Insights Connector
 - d. Insights & Analytics
133. Your company plans to use an agile approach to software development. You need to recommend an application to provide communication between members of the development team who work in locations around the world. The applications must meet the following requirements:
- Provide the ability to isolate the members of different project teams into separate communication channels and to keep a history of the chats within those channels.
 - Be available on Windows 10, Mac OS, iOS, and Android operating systems.
 - Provide the ability to add external contractors and suppliers to projects.
 - Integrate directly with Azure DevOps.

What should you recommend?

- a. Microsoft Project
 - b. Bamboo
 - c. Microsoft Lync
 - d. Microsoft Teams**
134. Your company is building a new solution in Java. The company currently uses a SonarQube server to analyze the code of .NET solutions. You need to analyze and monitor the code quality of the Java solution. Which task types should you add to the build pipeline?
- a. Octopus**
 - b. Chef
 - c. Maven
 - d. Grunt
 - e. Gravel**
135. Your company has a project in Azure DevOps. You need to ensure that when there are multiple builds pending deployment only the most recent build is deployed. What should you use?
- a. deployment queue settings**
 - b. deployment conditions
 - c. release gates
 - d. pull request triggers
136. You have a GitHub repository. You create a new repository in Azure DevOps. You need to recommend a procedure to clone the repository from GitHub to Azure DevOps. What should you recommend?

- a. Create a webhook.
 - b. Create a service connection for GitHub.
 - c. From Import a Git repository, click Import**
 - d. Create a pull request.
 - e. Create a personal access token in Azure DevOps
137. Your company is concerned that when developers introduce open source libraries, it creates licensing compliance issues. You need to add an automated process to the build pipeline to detect when common open source libraries are added to the code base. What should you use?
- a. PDM
 - b. OWASPZAP
 - c. WhiteSource**
 - d. Jenkins
138. You need to recommend a Docker container build strategy that meets the following requirements
- Minimizes image sizes
 - Minimizes the security surface area of the final image

What should you include in the recommendation?

- a. multi-stage builds**
 - b. single-stage builds
 - c. PowerShell Desired State Configuration (DSC)
 - d. Docker Swarm
139. You are developing an iOS application by using Azure DevOps. You need to test the application manually on 10 devices without releasing the application to the public. Which two actions should you perform? Each correct answer presents part of the solution. NOTE: Each correct selection is worth one point.
- a. Create a Microsoft Intune device compliance policy.
 - b. Deploy a certificate from an internal certification authority (CA) to each device.**
 - c. Register the application in the iTunes store.
 - d. Onboard the devices into Microsoft Intune.
 - e. Distribute a new release of the application.
 - f. Register the IDs of the devices in the Apple Developer portal.**
140. You have a private project in Azure DevOps. You need to ensure that a project manager can create custom work item queries to report on the project's progress. The solution must use the principle of least privilege. To which security group should you add the project manager?
- a. Project Collection Administrators
 - b. Reader
 - c. Project Administrators
 - d. Contributor**

141. Your company uses Azure Artifacts for package management. You need to configure an upstream source in Azure Artifacts for Python packages. Which repository type should you use as an upstream source?
- a. PyPI**
 - b. npmjs.org
 - c. Maven Central
 - d. third-party trusted Python
142. You store source code in a Git repository in Azure repos. You use a third-party continuous integration (CI) tool to control builds. What will Azure DevOps use to authenticate with the tool?
- b. a personal access token (PAT)**
 - c. a Shared Access Signature (SAS) token
 - d. NTLM authentication
143. You are designing the security validation strategy for a project in Azure DevOps. You need to identify package dependencies that have known security issues and can be resolved by an update. What should you use?
- a. Octopus Deploy
 - b. Jenkins
 - c. Gradle
 - d. SonarQube**
144. You use a Git repository in Azure Repos to manage the source code of a web application. Developers commit changes directly to the master branch. You need to implement a change management procedure that meets the following requirements: The master branch must be protected, and new changes must be built in the feature branches first. Changes must be reviewed and approved by at least one release manager before each merge. Changes must be brought into the master branch by using pull requests. What should you configure in Azure Repos?
D18912E1457D5D1DDCBD40AB3BF70D5D
- a. branch policies of the master branch**
 - b. Services in Project Settings
 - c. Deployment pools in Project Settings
 - d. branch security of the master branch
145. You manage build pipelines and deployment pipelines by using Azure DevOps. Your company has a team of 500 developers. New members are added continual lo the team you need to automate me management of users and licenses whenever possible. Which task must you perform manually?
- a. modifying group memberships
 - b. procuring licenses**
 - c. adding users
 - d. assigning entitlements
146. You configure an Azure Application Insights availability test. You need to notify the customer services department at your company by email when availability is

degraded. You create an Azure logic app that will handle the email and follow up actions. Which type of trigger should you use to invoke the logic app?

- a. an ApiConnection trigger
- b. a Request trigger
- c. an HTTPWebhook trigger**
- d. an HTTP trigger

147. Your company uses Azure DevOps to manage the build and release processes for applications. You use a Git repository for applications source control. You plan to create a new branch from an existing pull request. Later, you plan to merge the new branch and the target branch of the pull request. You need to use a pull request action to create the new branch. The solution must ensure that the branch uses only a portion of the code in the pull request. Which pull request action should you use?

- a. Set as default branch
- b. Approve with suggestions
- c. Cherry-pick**
- d. Reactivate
- e. Revert

148. You use Azure Pipelines to manage project builds and deployments. You plan to use Azure Pipelines for Microsoft Teams to notify the legal team when a new build is ready for release. You need to configure the Organization Settings in Azure DevOps to support Azure Pipelines for Microsoft Teams. What should you turn on?

- a. Azure Active Directory Conditional Access Policy Validation
- b. Alternate authentication credentials
- c. Third-party application access via OAuth**
- d. SSH authentication

149. You are developing a multi-tier application. The application will use Azure App Service web apps as the front end and an Azure SQL database as the back end. The application will use Azure functions to write some data to Azure Storage. You need to send the Azure DevOps team an email message when the front end fails to return a status code of 200. Which feature should you use?

- a. Service Map in Azure Log Analytics
- b. Profiler in Azure Application Insights
- c. availability tests in Azure Application Insights**
- d. Application Map in Azure Application Insights**

150. You plan to use Terraform to deploy an Azure resource group. You need to install the required frameworks to support the planned deployment. Which two frameworks should you install? Each correct answer presents part of the solution.

- a. Vault
- b. Terratest**
- c. Node.js
- d. Yeoman**
- e. Tiller

151. You are monitoring the health and performance of an Azure web app by using Azure Application Insights. You need to ensure that an alert is sent when the web app has a sudden rise in performance issues and failures. What should you use?
- a. Application Insights Profiler
 - b. Continuous export
 - c. Smart Detection**
 - d. custom events
 - e. usage analysis
152. You have a project in Azure DevOps named Project1. Project1 contains a build pipeline named Pipe1 that builds an application named Appl. You have an agent pool named Pool1 that contains a Windows Server 2019-based self-hosted agent. Pipe1 uses Pool1. You plan to implement another project named Project2. Project2 will have a build pipeline named Pipe2 that builds an application named App2. App1 and App2 have conflicting dependencies. You need to minimize the possibility that the two build pipelines will conflict with each other. The solution must minimize infrastructure costs. What should you do?
- a. Create two container jobs.**
 - b. Change the self-hosted agent to use Red Hat Enterprise Linux (RHEL) 8.
 - c. Add another self-hosted agent
 - d. Add a Docker Compose task to the build pipelines.
153. You have a free tier of an Azure DevOps organization named Contoso. Contoso contains 10 private projects. Each project has multiple jobs with no dependencies. You frequently run the jobs on five self-hosted agents but experience long build times and frequently queued builds. You need to minimize the number of queued builds and the time it takes to run the builds. What should you do?
- a. Purchase self-hosted parallel jobs.**
 - b. Register additional self-hosted agents.
 - c. Purchase Microsoft-hosted parallel jobs.
 - d. Configure the pipelines to use the Microsoft-hosted agents.
154. You are integrating Azure Pipelines and Microsoft Teams. You install the Azure Pipelines app in Microsoft Teams. You have an Azure DevOps organization named Contoso that contains a project name Project1. You subscribe to Project1 in Microsoft Teams. You need to ensure that you only receive events about failed builds in Microsoft Teams. What should you do first?
- a. From Microsoft Teams, run @azure pipelines subscribe <https://dev.azure.com/Contoso/Project1>.**
 - b. From Microsoft Teams, run @azure pipelines subscriptions.
 - c. From Azure Pipelines, enable continuous integration for Project1.
 - d. From Azure Pipelines, add a Publish Build Artifacts task to Project1.
155. You have an Azure DevOps organization named Contoso and an Azure subscription. The subscription contains an Azure virtual machine scale set named VMSS1 that is configured for autoscaling. You use Azure DevOps to build a web app named Appl and deploy Appl to VMSS1. Appl is used heavily and has usage

patterns that vary on a weekly basis. You need to recommend a solution to detect an abnormal rise in the rate of failed requests to Appl. The solution must minimize administrative effort. What should you include in the recommendation?

- a. an Azure Service Health alert
- b. the Failures feature in Azure Application Insights
- c. the Smart Detection feature in Azure Application Insights**
- d. an Azure Monitor alert that uses an Azure Log Analytics query

156. Your company uses Azure DevOps. Only users who have accounts in Azure Active Directory can access the Azure DevOps environment. You need to ensure that only devices that are connected to the on-premises network can access the Azure DevOps environment. What should you do?

- a. Assign the Stakeholder access level to all users.
- b. In Azure Active Directory, configure risky sign-ins.
- c. In Azure DevOps, configure Security in Project Settings.
- d. In Azure Active Directory, configure conditional access.**

157. In Azure DevOps, you create Project3. You need to meet the requirements of the project. What should you do first?

- a. From Azure DevOps, create a service endpoint.**
- b. From SonarQube, obtain an authentication token.
- c. From Azure DevOps, modify the build definition.
- d. From SonarQube, create a projec

158. Your company deploys applications in Docker containers. You want to detect known exploits in the Docker images used to provision the Docker containers. You need to integrate image scanning into the application lifecycle. The solution must expose the exploits as early as possible during the application lifecycle. What should you configure?

- a. a task executed in the continuous deployment pipeline and a scheduled task against a running production container.
- b. a task executed in the continuous integration pipeline and a scheduled task that analyzes the production container.
- c. a task executed in the continuous integration pipeline and a scheduled task that analyzes the image registry**
- d. manual tasks performed during the planning phase and the deployment phase

159. You are developing an open source solution that uses a GitHub repository. You create a new public project in Azure DevOps. You plan to use Azure Pipelines for continuous build. The solution will use the GitHub Checks API. Which authentication type should you use?

- a. a personal access token
- b. SAML
- c. GitHub App**
- d. OAuth**

160. You add the virtual machines as managed nodes in Azure Automation State Configuration. You need to configure the computer in Group7. What should you do?

- a. Run the Register-AzureRmAutomationDscNode Azure Powershell cmdlet.**
 - b. Modify the ConfigurationMode property of the Local Configuration Manager (LCM).
 - c. Install PowerShell Core.
 - d. Modify the RefreshMode property of the Local Configuration Manager (LCM).
161. You have a private project in Azure DevOps. You need to ensure that a project manager can create custom work item queries to report on the project's progress. The solution must use the principle of least privilege. To which security group should you add the project manager?
- a. Project Collection Administrators
 - b. Reader
 - c. Project Administrators
 - d. Contributor**
162. You have an Azure DevOps organization named Contoso, an Azure DevOps project named Project1, an Azure subscription named Sub1, and an Azure key vault named vault1. You need to ensure that you can reference the values of the secrets stored in vault1 in all the pipelines of Project1. The solution must prevent the values from being stored in the pipelines. What should you do?
- a. Create a variable group in Project1.**
 - b. Add a secure file to Project1.
 - c. Modify the security settings of the pipelines.
 - d. Configure the security policy of Contoso.
163. You store source code in a Git repository in Azure repos. You use a third-party continuous integration (CI) tool to control builds. What will Azure DevOps use to authenticate with the tool?
- a. certificate authentication
 - b. a personal access token (PAT)**
 - c. a Shared Access Signature (SAS) token
 - d. NTLM authentication
164. You are building an ASP.NET Core application. You plan to create an application utilization baseline by capturing telemetry data. You need to add code to the application to capture the telemetry data. The solution must minimize the costs of storing the telemetry data.
- Which two actions should you perform? Each correct answer presents part of the solution.
- NOTE: Each correct selection is worth one point
- a. Add the <InitialSamplingPercentage>99</InitialSamplingPercentage> parameter to the ApplicationInsights.config file.
 - b. From the code of the application, enable adaptive sampling.
 - c. From the code of the application, add Azure Application Insights telemetry.**
 - d. Add the <MaxTelemetryItemsPerSecond>5</MaxTelemetryItemsPerSecond> parameter to the ApplicationInsights.config file.
 - e. From the code of the application, disable adaptive sampling.**

165. You are designing a configuration management solution to support five apps hosted on Azure App Service. Each app is available in the following three environments: development, test, and production. You need to recommend a configuration management solution that meets the following requirements:

- Supports feature flags
- Tracks configuration changes from the past 30 days
- Stores hierarchically structured configuration values
- Controls access to the configurations by using role-based access control (RBAC)
- Stores shared values as key/value pairs that can be used by all the apps

Which Azure service should you recommend as the configuration management solution?

- a. Azure Cosmos DB
- b. Azure App Service
- c. Azure App Configuration**
- d. Azure Key Vault

166. You have a multi-tier application. The front end of the application is hosted in Azure App Service. You need to identify the average load times of the application pages. What should you use?

- a. the diagnostics logs of the App Service
- b. Azure Application Insights**
- c. Azure Advisor
- d. the activity log of the App Service

167. You have an Azure DevOps project that contains a release pipeline and a Git repository. When a new code revision is committed to the repository, a build and release is triggered. You need to ensure that release information for the pipeline is added automatically to the work items associated to the Git commit. What should you do?

- a. Modify the Integrations options for the pipeline.
- b. Modify the post-deployment conditions for the last stage of the pipeline.**
- c. Add an agentless job to the pipeline.
- d. Modify the service hooks for the project.

168. You plan to use Terraform to deploy an Azure resource group. You need to install the required frameworks to support the planned deployment. Which two frameworks should you install? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- a. Vault
- b. Terratest**
- c. Node.js
- d. Yeoman**
- e. Tiller

169. You have multi-tier application that has an Azure Web Apps front end and an Azure SQL Database back end. You need to recommend a solution to capture and store telemetry data. The solution must meet the following requirements:

- Support using ad-hoc queries to identify baselines.
- Trigger alerts when metrics in the baseline are exceeded.
- Store application and database metrics in a central location.

What should you include in the recommendation?

a. Azure Application Insights

- b. Azure SQL Database Intelligent Insights
- c. Azure Event Hubs
- d. Azure Log Analytics

170. You have an Azure DevOps organization named Contoso and an Azure subscription. The subscription contains an Azure virtual machine scale set named VMSS1 that is configured for autoscaling. You use Azure DevOps to build a web app named Appl and deploy Appl to VMSS1. Appl is used heavily and has usage patterns that vary on a weekly basis. You need to recommend a solution to detect an abnormal rise in the rate of failed requests to Appl. The solution must minimize administrative effort. What should you include in the recommendation?

- a. an Azure Service Health alert
- b. the Failures feature in Azure Application Insights

c. the Smart Detection feature in Azure Application Insights

- d. an Azure Monitor alert that uses an Azure Log Analytics query

171. You use Azure Artifacts to host NuGet packages that you create. You need to make one of the packages available to anonymous users outside your organization. The solution must minimize the number of publication points. What should you do?

a. Create a new feed for the package

- b. Publish the package to a public NuGet repository.
- c. Promote the package to a release view.
- d. Change the feed URL of the package.

172. You have an Azure DevOps organization named Contoso and an Azure DevOps project named Project1. You plan to use Microsoft-hosted agents to build container images that will host full Microsoft .NET Framework apps in a YAML pipeline in Project1. What are two possible virtual machine images that you can use for the Microsoft-hosted agent pool? Each correct answer presents a complete solution. NOTE: Each correct selection is worth one point.

a. vs2017-win2016

- b. ubuntu-16.04
- c. win1803
- d. macOS-10.13

e. vs.2015-win2012r2

173. You have an existing project in Azure DevOps. You plan to integrate GitHub as the repository for the project. You need to ensure that Azure Pipelines runs under the Azure Pipelines identity. Which authentication mechanism should you use?
- a. GitHubApp**
 - b. OAuth
 - c. personal access token (PAT)
 - d. Azure Active Directory (Azure AD)
174. Your company uses cloud-hosted Jenkins for builds. You need to ensure that Jenkins can retrieve source code from Azure Repos. Which three actions should you perform? Each correct answer presents part of the solution. NOTE: Each correct answer selection is worth one point
- a. Add the Team Foundation Server (TFS) plug-in to Jenkins.**
 - b. Create a personal access token in your Azure DevOps account.**
 - c. Create a webhook in Jenkins.
 - d. Add a domain to your Jenkins account.
 - e. Create a service hook in Azure DevOps.**
175. Your company builds a multi-tier web application. You use Azure DevOps and host the production application on Azure virtual machines. Your team prepares an Azure Resource Manager template of the virtual machine that you will use to test new features. You need to create a staging environment in Azure that meets the following requirements:
- Minimizes the cost of Azure hosting
 - Provisions the virtual machines automatically
 - Use the custom Azure Resource Manager template to provision the virtual machines
- What should you do?
- a. In Azure DevOps, configure new tasks in the release pipeline to create and delete the virtual machines in Azure DevTest Labs.**
 - b. From Azure Cloud Shell, run Azure PowerShell commands to create and delete the new virtual machines in a staging resource group.
 - c. In Azure DevOps, configure new tasks in the release pipeline to deploy to Azure Cloud Services.
 - d. In Azure Cloud Shell, run Azure CLI commands to create and delete the new virtual machines in a staging resource group.
176. You plan to onboard 10 new developers. You need to recommend a development environment that meets the following requirements: Integrates with GitHub
- Provides integrated debugging tools
 - Supports remote workers and hot-desking environments
- Supports developers who use browsers, tablets, and Chromebooks. What should you recommend?
- a. VS Code
 - b. Xamarin Studio

c. MonoDevelop

d. Visual Studio Codespaces

177. You have a build pipeline in Azure Pipelines that uses different jobs to compile an application for 10 different architectures. The build pipeline takes approximately one day to complete. You need to reduce the time it takes to execute the build pipeline. Which two actions should you perform? Each correct answer presents part of the solution. NOTE: Each correct selection is worth one point

a. Move to a blue/green deployment pattern.

b. Create an agent pool.

c. Create a deployment group.

d. Reduce the size of the repository.

e. Increase the number of parallel jobs.

178. You have an Azure subscription that contains resources in several resource groups. You need to design a monitoring strategy that will provide a consolidated view. The solution must support the following requirements:

- Support role-based access control (RBAC) by using Azure Active Directory (Azure AD) identities.
- Include visuals from Azure Monitor that are generated by using the Kusto query language.
- Support documentation written in markdown.
- Use the latest data available for each visual.

What should you use to create the consolidated view?

a. Azure Data Explorer

b. Azure dashboards

c. Azure Monitor

d. Microsoft Power BI

179. You are developing an application. The application source has multiple branches. You make several changes to a branch used for experimentation. You need to update the main branch to capture the changes made to the experimentation branch and override the history of the Git repository. Which Git option should you use?

a. Rebase

b. Fetch

c. MergeD18912E1457D5D1DDCBD40AB3BF70D5D

d. Push

180. Your company uses the following resources:

- Windows Server 2019 container images hosted in an Azure Container Registry
- Azure virtual machines that run the latest version of Ubuntu
- An Azure Log Analytics workspace
- Azure Active Directory (Azure AD)
- An Azure key vault

For which two resources can you receive vulnerability assessments in Azure Security Center? Each correct answer presents part of the solution.

a. the Azure Log Analytics workspace

- b. the Azure key vault
- c. the Azure virtual machines that run the latest version of Ubuntu**
- d. Azure Active Directory (Azure AD)
- e. the Windows Server 2019 container images hosted in the Azure Container Registry**

181. You have an Azure DevOps organization named Contoso and an Azure subscription. You use Azure DevOps to build and deploy a web app named App1. Azure Monitor is configured to generate an email notification in response to alerts generated whenever App1 generates a server-side error. You need to receive notifications in Microsoft Teams whenever an Azure Monitor alert is generated. Which two actions should you perform? Each correct answer presents part of the solution. NOTE: Each correct selection is worth one point.

- a. Create an Azure logic app that has an HTTP request trigger.**
- b. Modify the Diagnostics settings in Azure Monitor.**
- c. Modify an action group in Azure Monitor.
- d. Create an Azure Monitor workbook.
- e. Create an Azure logic app that has an Azure DevOps trigger.

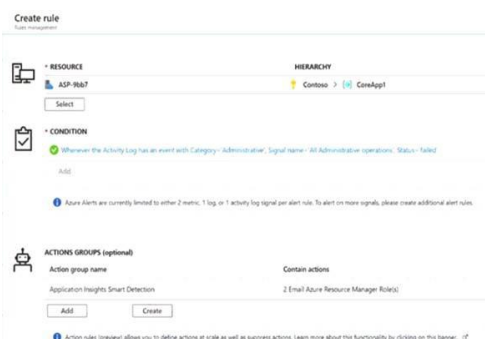
182. You have an application that consists of several Azure App Service web apps and Azure functions. You need to access the security of the web apps and the functions. Which Azure features can you use to provide a recommendation for the security of the application?

- a. Security & Compliance in Azure Log Analytics
- b. Resource health in Azure Service Health
- c. Smart Detection in Azure Application Insights
- d. Compute & apps in Azure Security Center**

183. You have a private GitHub repository. You need to display the commit status of the repository on Azure Boards. What should you do first?

- a. Create a GitHub action in GitHub.
- b. Add the Azure Pipelines app to the GitHub repository.
- c. Configure multi-factor authentication (MFA) for your GitHub account.
- d. Add the Azure Boards app to the repository.**

184. You create an alert rule in Azure Monitor as shown in the following exhibit.



Which action will trigger an alert?

- a. a failed attempt to delete the ASP-9bb7 resource**

- b. a change to a role assignment for the ASP-9bb7 resource
 - c. a successful attempt to delete the ASP-9bt>7 resource
 - d. a failed attempt to scale up the ASP-9bb7 resource
185. You use WhiteSource Bolt to scan a Node.js application. The WhiteSource Bolt scan identifies numerous libraries that have invalid licenses. The libraries are used only during development and are not part of a production deployment. You need to ensure that WhiteSource Bolt only scans production dependencies. Which two actions should you perform? Each correct answer presents part of the solution. NOTE: Each correct selection is worth one point.
- a. Run npm install and specify the --production flag.**
 - b. Modify the WhiteSource Bolt policy and set the action for the licenses used by the development tools to Reassign.
 - c. Modify the devDependencies section of the project's Package.json file.**
 - d. Configure WhiteSource Bolt to scan the node_modules directory only.
186. You have a build pipeline in Azure Pipelines that occasionally fails. You discover that a test measuring the response time of an API endpoint causes the failures. You need to prevent the build pipeline from failing due to The test. Which two actions should you perform? Each correct answer presents part of the solution. NOTE: Each correct selection is worth one point
- a. Enable Test Impact Analysis (TIA).
 - b. Enable test slicing.
 - c. Clear Flaky tests included in test pass percentage**
 - d. Set Flaky test detection to Off
 - e. Manually mark the test as flaky.**
187. You have an Azure DevOps project that uses many package feeds. You need to simplify the project by using a single feed that stores packages produced by your company and packages consumed from remote feeds. The solution must support public feeds and authenticated feeds. What should you enable in DevOps?
- a. Universal Packages
 - b. views in Azure Artifacts**
 - c. upstream sources
 - d. a symbol server
188. You are building a Microsoft ASP.NET application that requires authentication. You need to authenticate users by using Azure Active Directory (Azure AD). What should you do first?
- a. Create a membership database in an Azure SQL database.
 - b. Assign an enterprise application to users and groups.
 - c. Create an app registration in Azure AD.**
 - d. Configure the application to use a SAML endpoint.
 - e. Create a new OAuth token from the application.
189. You have an Azure DevOps project named Project1 and an Azure subscription named Sub1. Sub1 contains an Azure virtual machine scale set named VMSS1. VMSS1 hosts a web application named WebApp1. WebApp1 uses stateful sessions.

The WebApp1 installation is managed by using the Custom Script extension. The script resides in an Azure Storage account named sa1. You plan to make a minor change to a UI element of WebApp1 and to gather user feedback about the change. You need to implement limited user testing for the new version of WebApp1 on VMSS1. Which three actions should you perform? Each correct answer presents part of the solution. NOTE: Each correct selection is worth one point.

a. Modify the load balancer settings of VMSS1.

b. Redeploy VMSS1.

c. Upload a custom script file to sa1.

d. Modify the Custom Script extension settings of VMSS1.

e. Update the configuration of a virtual machine in VMSS1.

190. Your development team is building a new web solution by using the Microsoft Visual Studio integrated development environment (IDE). You need to make a custom package available to all the developers. The package must be managed centrally, and the latest version must be available for consumption in Visual Studio automatically. Which three actions should you perform? Each correct answer presents part of the solution. NOTE: Each correct selection is worth one point.

a. Publish the package to a feed.

b. Create a new feed in Azure Artifacts.

c. Upload a package to a Git repository.

d. Add the package URL to the Environment settings in Visual Studio.

e. Add the package URL to the NuGet Package Manager settings in Visual Studio.

f. Create a Git repository in Azure Repos.

191. You have a web app hosted on Azure App Service. The web app stores data in an Azure SQL database. You need to generate an alert when there are 10,000 simultaneous connections to the database. The solution must minimize development effort. Which option should you select in the Diagnostics settings of the database?

a. Send to Log Analytics

b. Archive to a storage account

c. Stream to an event hub

192. You have a containerized solution that runs in Azure Container Instances. The solution contains a frontend container named App1 and a backend container named DB1. DB1 loads a large amount of data during startup. You need to verify that DB1 can handle incoming requests before users can submit requests to App1. What should you configure?

a. a liveness probe

b. an Azure Load Balancer health probe

c. a readiness probe

d. a performance log

193. You are creating a build pipeline in Azure Pipelines. You define several tests that might fail due to third-party applications. You need to ensure that the build pipeline

completes successfully if the third-party applications are unavailable. What should you do?

a. Configure the build pipeline to use parallel jobs

b. Configure flaky tests

c. Increase the test pass percentage

d. Add the Requirements quality widget to your dashboard

194. You have an Azure subscription that contains an Azure Active Directory (Azure AD) tenant. You are configuring a build pipeline in Azure Pipelines that will include a task named Task1. Task1 will authenticate by using an Azure AD service principal. Which three values should you configure for Task1? Each correct answer presents part of the solution. NOTE: Each correct selection is worth one point.

a. the object ID

b. the tenant ID

c. the app ID

d. the client secret

e. the subscription ID

195. You have a project in Azure DevOps named Project1. Project1 contains a pipeline that builds a container image named Image1 and pushes Image1 to an Azure container registry named ACR1. Image1 uses a base image stored in Docker Hub. You need to ensure that Image1 is updated automatically whenever the base image is updated. What should you do?

a. Create and run an Azure Container Registry task.

b. Add a Docker Hub service connection to Azure Pipelines.

c. Enable the Azure Event Grid resource provider and subscribe to registry events.

d. Create a service hook in Project1.

196. You need to implement Project4. What should you do first?

a. Add the FROM instruction in the Dockerfile file.

b. Add a Copy and Publish Build Artifacts task to the build pipeline.

c. Add a Docker task to the build pipeline.

d. Add the MAINTAINER instruction in the Dockerfile file.

197. You plan to create an image that will contain a .NET Core application. You have a Dockerfile file that contains the following code. (Line numbers are included for reference only.)

```
01 FROM microsoft/dotnet:2.1-sdk
02 COPY ./
03 RUN dotnet publish -c Release -o out
04 FROM microsoft/dotnet:2.1-sdk
05 COPY -from=0 /out /
06 WORKDIR /
07 ENTRYPOINT ["dotnet", "appl.dll"]
```

198. You need to ensure that the image is as small as possible when the image is built. Which line should you modify in the file?

a. 1

b. 3

c. 4

d. 7

199. What should you use to implement the code quality restriction on the release pipeline for the investment planning applications suite?

a. a trigger

b. a pre deployment approval

c. a post-deployment approval

d. a deployment gate

200. You have an Azure DevOps organization named Contoso that contains a project named Project 1. You provision an Azure key vault name Keyvault1. You need to reference Keyvault1 secrets in a build pipeline of Project1. What should you do first?

a. Create an XAML build service.

b. Create a variable group in Project1.

c. Add a secure file to Project1.

d. Configure the security policy of Contoso.

You have an on-premises network that contains several servers.

You plan to migrate all the servers to Azure.

You need to recommend a solution to ensure that some of the servers are available if a single Azure data center goes offline for an extended period.

What should you include in the recommendation?

A. fault tolerance **Most Voted**

B. elasticity

C. scalability

D. low latency

You are making use of Azure DevOps to configure Azure Pipelines for project, named PROJ-01.

You are preparing to use a version control system that allows for source code to be stored on a managed Windows server located on the company network.

Which of the following is the version control system you should use?

A. Github Enterprise

B. Bitbucket cloud

C. Github Professional

D. Git in Azure Repos

You need to consider the underlined segment to establish whether it is accurate.

Your company has a multi-tier application that has its front end hosted in Azure App Service.

To pinpoint the average load times of the application pages, you should make use of Azure Event Hubs.

Select "No adjustment required" if the underlined segment is accurate. If the underlined segment is inaccurate, select the accurate option.

A. No adjustment required.

B. Azure Application Insights

C. Azure Log Analytics

D. Azure Advisor

DRAG DROP

1. You have an on-premises Bitbucket Server with a firewall configured to block inbound Internet traffic. The server is used for Git-based source control. You intend to manage the build and release processes using Azure DevOps. This plan requires you to integrate Azure DevOps and Bitbucket. Which of the following will allow for this integration? Answer by dragging the correct options from the list to the answer area.

Select and Place:

Options

Answer

A self-hosted agent

A Microsoft-hosted agent

An External Git service connection

Service hooks

A self-hosted agent, An External Git service connection

2. To achieve your goal, you have to install the necessary frameworks. Which of the following are the frameworks you should use? Answer by dragging the correct options from the list to the answer area.

Select and Place:

Options

Answer

Yeoman

Vault

Terratest

Tiller

Yeoman, Terratest

3. You have recently created a web application for your company. You have been tasked with making sure that a summary of the exceptions that transpire in the application is automatically sent to Microsoft Teams on a daily basis. Which of the following Azure services should you use? Answer by dragging the correct options from the list to the answer area.

Select and Place:

Options

Answer

Azure DevOps Project

Azure Logic Apps

Azure Pipelines

Azure Application Insights

Azure Logic Apps, Azure Application Insights

4. You need to recommend project metrics for dashboards in Azure DevOps. Which chart widgets should you recommend for each metric? To answer, drag the appropriate chart widgets to the correct metrics. Each chart widget may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content. NOTE: Each correct selection is worth one point. Select and Place:

Chart Widgets

Answer Area

Burndown

The elapsed time from the creation of work items to their completion:

Cycle Time

Lead Time

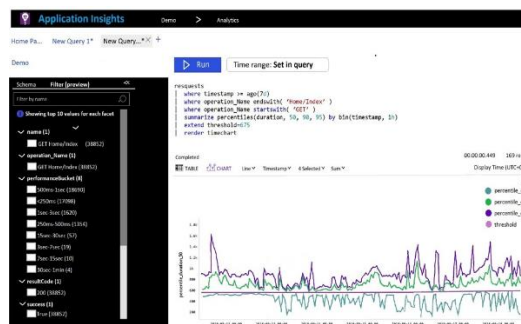
The elapsed time to complete work items once they are active:

Velocity

The remaining work:

Lead Time, Cycle Time, Burndown

5. You plan to create alerts that will be triggered based on the page load performance of a home page. You have the Application Insights log query shown in the following exhibit.



Use the drop-down menus to select the answer choice that completes each statement based on the information presented in the graphic. NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

To create an alert based on the page load experience of most users, the alerting level must be based on [answer choice].

	▼
percentile_duration_50	
percentile_duration_90	
percentile_duration_95	
threshold	

To only create an alert when authentication error occurs on the server, the query must be filtered on [answer choice].

	▼
item Type	
resultCode	
source	
success	

Percentile_duration_95, Success

6. You have an Azure Kubernetes Service (AKS) pod. You need to configure a probe to perform the following actions:

- ☞ Confirm that the pod is responding to service requests.
- ☞ Check the status of the pod four times a minute.
- ☞ Initiate a shutdown if the pod is unresponsive.

How should you complete the YAML configuration file? To answer, select the appropriate options in the answer area. NOTE: Each correct selection is worth one point.

Answer Area

```
apiVersion: v1
kind: Pod
metadata:
  labels:
    test: readiness-and-liveness
    name: readiness-http
spec:
  containers:
  - name: container1
    image: k8s.gcr.io/readiness-and-liveness
    args:
    - /server
```

	▼
livenessProbe:	
readinessProbe:	
ShutdownProbe:	
startupProbe:	

```
  httpGet:
    path: /checknow
    port: 8123
    httpHeaders:
    - name: Custom-Header
      value: CheckNow
```

	▼
initialDelaySeconds: 15	
periodSeconds: 15	
timeoutSeconds: 15	

readinessProbe, periodSecond:15

7. Your company is building a new web application. You plan to collect feedback from pilot users on the features being delivered. All the pilot users have a corporate

computer that has Google Chrome and the Microsoft Test & Feedback extension installed. The pilot users will test the application by using Chrome. You need to identify which access levels are required to ensure that developers can request and gather feedback from the pilot users. The solution must use the principle of least privilege. Which access levels in Azure DevOps should you identify? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Answer Area

Developers: ☐ Basic
☐ Stakeholder

Pilot users: ☐ Basic
☐ Stakeholder

Basic, Stakeholder

8. Your company wants to use Azure Application Insights to understand how user behaviors affect an application. Which Application Insights tool should you use to analyze each behavior? To answer, drag the appropriate tools to the correct behaviors. Each tool may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content. NOTE: Each correct selection is worth one point.

Select and Place:

Tools	Answer Area
Impact	Feature usage: <input type="text"/>
User Flows	Number of people who used the actions and its features: <input type="text"/>
Users	The effect that the performance of the application has on the usage of a page or a feature: <input type="text"/>

User Flows, Users, Impact

9. You have several Azure virtual machines that run Windows Server 2019. You need to identify the distinct event IDs of each virtual machine as shown in the following table.

Name	Event ID
VM1	[704, 701, 1501, 1500, 1085]
VM2	[326, 105, 302, 301, 300, 102]
...	...

How should you complete the Azure Monitor query? To answer, drag the appropriate values to the correct locations. Each value may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view

content.

NOTE: Each correct selection is worth one point.

Select and Place:

Values	Answer Area
count()	Event
makelist(EventID)	where TimeGenerated > ago(12h)
makeset(EventID)	order by TimeGenerated desc
mv-expand	<input type="text"/> <input type="text"/> by Computer
project	
render	
summarize	

Summarize, makelist(EventID)

10. You have an Azure web app named Webapp1. You need to use an Azure Monitor query to create a report that details the top 10 pages of Webapp1 that failed. How should you complete the query? To answer, select the appropriate options in the answer area. NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

```
exceptions
pageViews
requests
traces

| where
  duration == 0
  itemType == "availabilityResult"
  resultCode == "200"
  success == false

| summarize failedCount=sum(itemCount) by name, resultCode
| top 10 by failedCount desc
| render barchart
```

Requests, success==false

11. You have a project in Azure DevOps named Contoso App that contains pipelines in Azure Pipelines for GitHub repositories. You need to ensure that developers receive Microsoft Teams notifications when there are failures in a pipeline of Contoso App. What should you run in Teams? To answer, select the appropriate options in the answer area. NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

@azure pipelines	
feedback	https://dev.azure.com/contoso/contoso-app/
signin	https://dev.azure.com/contoso/contoso-app/_build
subscribe	https://dev.azure.com/contoso/contoso-app/_packaging
subscriptions	https://dev.azure.com/contoso/contoso-app/_work-items

Subscribe, <https://dev.azure.com/contoso/contoso-app/>

12. You use Azure DevOps to manage the build and deployment of an app named App1. You have a release pipeline that deploys a virtual machine named VM1. You plan to monitor the release pipeline by using Azure Monitor. You need to create an alert to monitor the performance of VM1. The alert must be triggered when the average CPU usage exceeds 70 percent for five minutes. The alert must calculate the average once every minute. How should you configure the alert rule? To answer, select the appropriate options in the answer area. NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Aggregation granularity (Period):

Threshold value:

Operator:

5 minutes, Static, Greater than

13. You are planning projects for three customers. Each customer's preferred process for work items is shown in the following table.

Customer name	Preferred process
Litware, Inc.	Track product backlog items (PBIs) and bugs on the Kanban board. Break the PBIs down into tasks on the task board.
Contoso, Ltd.	Track user stories and bugs on the Kanban board. Track the bugs and tasks on the task board.
A. Datum Corporation	Track requirements, change requests, risks, and reviews.

The customers all plan to use Azure DevOps for work item management. Which work item process should you use for each customer? To answer, drag the appropriate work item processes to the correct customers. Each work item process may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content. NOTE: Each correct selection is worth one point.

Select and Place:

Processes

Agile

CMMI

Scrum

XP

Answer Area

Litware

Contoso:

A. Datum:

Scrum, Agile, CMMI

14. You have an application named App1 that has a custom domain of app.contoso.com. You create a test in Azure Application Insights as shown in the following exhibit.

Create test

Basic information

Test name:

Mean: mean about configuring tests against applications hosted behind a firewall

Test type:

URL:

Parse dependent requests: ☒

Enable metrics for availability test failures: ☐

Test frequency:

Test locations: 4 locations is configured

Success criteria

Test Timeout:

☒ HTTP response

Status code must equal:

☒ Content match

Content must contain:

Alerts: ☒ Enabled

Use the drop-down menus to select the answer choice that completes each statement based on the information presented in the graphic. NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

The test will execute [answer choice].

every 30 seconds at a random location

every 30 seconds per location

every five minutes at a random location

every five minutes per location

The test will pass if [answer choice] within 30 seconds.

App1 responds to an ICMP ping

the HTML of App1 and the HTML from URLs in <a> tags load

all the HTML, JavaScripts, and images of App1 load

Every five minutes at a random location, All the HTML, JavaScripts, and images of App1 load

15. You use Azure Pipelines to automate Continuous Integration/Continuous Deployment (CI/CD) for an Azure web app named WebApp1. You configure an Azure Monitor alert that is triggered when WebApp1 generates an error. You need to configure the alert to forward details of the error to a third-party system. The solution must minimize administrative effort. Which three actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order. Select and Place:

Actions	Answer Area
Select the Recurrence trigger.	
Create an Azure event hub.	
Create an Azure logic app.	⬅️ ⬆️
Select the HTTP request trigger.	➡️ ⬇️
Update the action group in Azure Monitor.	
Select the Sliding Window trigger.	

Create an Azure logic app, Select HTTP request trigger, Update the action group in Azure Monitor

16. You have an Azure subscription that contains the resources shown in the following table.

Name	Type
DF1	Azure Data Factory
SQL1	Azure SQL Database
KV1	Azure Key Vault

You plan to create a linked service in DF1. The linked service will connect to SQL1 by using Microsoft SQL Server authentication. The password for the SQL Server login will be stored - in KV1. You need to configure DF1 to retrieve the password when the data factory connects to SQL1. The solution must use the principle of least privilege. How should you configure DF1? To answer, select the appropriate options in the answer area. NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Permission type:

Access method:

Secret, Access policy

17. Your company has a project in Azure DevOps. You plan to create a release pipeline that will deploy resources by using Azure Resource Manager templates. The templates will reference secrets stored in Azure. You need to recommend a solution for accessing the secrets stored in the key vault during deployments. The solution must use the principle of least privilege. What should you include in the recommendation? To answer, drag the appropriate configurations to the correct targets. Each configuration may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content. NOTE: Each correct selection is worth one point.

Select and Place:

Configurations

Answer Area

-
-
-

Enable key vaults for template deployment by using:

Restrict access to the secrets in Key Vault by using:

A Key Vault advanced access policy, RBAC

18. You need to configure access to Azure DevOps agent pools to meet the following requirements:

- ☞ Use a project agent pool when authoring build or release pipelines.
- ☞ View the agent pool and agents of the organization.
- ☞ Use the principle of least privilege.

Which role memberships are required for the Azure DevOps organization and the project? To answer, drag the appropriate role memberships to the correct targets.

Each role membership may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.

NOTE: Each correct selection is worth one point.

Select and Place:

Roles	Answer Area
Administrator	
Reader	Organization: <input type="text"/>
Service Account	Project: <input type="text"/>
User	

Reader, Service Account

19. Your company has an Azure subscription named Subscription1. Subscription1 is associated to an Azure Active Directory tenant named contoso.com. You need to provision an Azure Kubernetes Services (AKS) cluster in Subscription1 and set the permissions for the cluster by using RBAC roles that reference the identities in contoso.com. Which three objects should you create in sequence? To answer, move the appropriate objects from the list of objects to the answer area and arrange them in the correct order.

Select and Place:

Objects	Answer Area
a system-assigned managed identity	<input type="text"/>
a cluster	<input type="text"/>
an application registration in contoso.com	<input type="text"/>
an RBAC binding	

a cluster, a system-assigned managed identity, an RBAC binding

20. You manage build and release pipelines by using Azure DevOps. Your entire managed environment resides in Azure. You need to configure a service endpoint for accessing Azure Key Vault secrets. The solution must meet the following

requirements:

- ☞ Ensure that the secrets are retrieved by Azure DevOps.
- ☞ Avoid persisting credentials and tokens in Azure DevOps.

How should you configure the service endpoint? To answer, select the appropriate options in the answer area. NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Service connection type:	<div><div></div><div>Azure Resource Manager</div><div>Generic service</div><div>Team Foundation Server / Azure Pipelines service connection</div></div>
Authentication/authorization method for the connection:	<div><div></div><div>Azure Active Directory OAuth 2.0</div><div>Grant authorization</div><div>Managed Service Identity Authentication</div></div>

Team Foundation Server/ Azure Pipelines service connection, Managed Service Identity Authentication

21. Your company is creating a suite of three mobile applications. You need to control access to the application builds. The solution must be managed at the organization level. What should you use? To answer, select the appropriate options in the answer area. NOTE: Each correct selection is worth one point.

Answer Area

Groups to control the build access:	<div><div></div><div>Active Directory groups</div><div>Azure Active Directory groups</div><div>Microsoft Visual Studio App Center distribution groups</div></div>
Group type:	<div><div></div><div>Private</div><div>Public</div><div>Shared</div></div>

Microsoft Visual Studio App Center distribution groups, Shared

22. You use GitHub Enterprise Server as a source code repository. You create an Azure DevOps organization named Contoso. In the Contoso organization, you create a project named Project1. You need to link GitHub commits, pull requests, and issues to the work items of Project1. The solution must use OAuth-based authentication. Which three actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in

the correct order.

Select and Place:

Actions

Answer Area

From Developer settings in GitHub Enterprise Server, register a new OAuth app.

From Project Settings in Azure DevOps, create a service hook subscription.

From Organization settings in Azure DevOps, connect to Azure Active Directory (Azure AD).

From Project Settings in Azure DevOps, add a GitHub connection.

From Organization settings in Azure DevOps, add an OAuth configuration.

From Developer settings in GitHub Enterprise Server, generate a private key.



From Developer settings in GitHub Enterprise Server, register a new OAuth app, From Organization settings in Azure DevOps, create a service hook subscription, From Project Settings in Azure DevOps, add a GitHub connection

23. You are configuring an Azure DevOps deployment pipeline. The deployed application will authenticate to a web service by using a secret stored in an Azure key vault. You need to use the secret in the deployment pipeline. Which three actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.

Select and Place:

Actions

Answer Area

Create a service principal in Azure Active Directory (Azure AD).

Add an app registration in Azure Active Directory (Azure AD).

Configure an access policy in the key vault.

Generate a self-signed certificate.

Add an Azure Resource Manager service connection to the pipeline.

Export a certificate from the key vault.



Create a service principle in Azure Active Directory (Azure AD), Configure an access policy in the key vault, Add an Azure Resource Manager service connection to the pipeline

24. You have a private project in Azure DevOps and two users named User1 and User2. You need to add User1 and User2 to groups to meet the following requirements:

- ☞ User1 must be able to create a code wiki.
- ☞ User2 must be able to edit wiki pages.
- ☞ The solution must use the principle of least privilege.

To which group should you add each user? To answer, drag the appropriate groups to the correct users. Each group may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.

NOTE: Each correct selection is worth one point.

Select and Place:

Groups	Answer Area
Build Administrators	User1: <input type="text"/>
Contributors	User2: <input type="text"/>
Project Administrators	
Project Valid Users	
Stakeholders	

Project Administrators, Contributors

25. Your company has an Azure subscription. The company requires that all resource groups in the subscription have a tag named organization set to a value of Contoso. You need to implement a policy to meet the tagging requirement. How should you complete the policy? To answer, select the appropriate options in the answer area.

Hot Area:

Answer Area

```

{
  "policyRule": {
    "if": {
      "allOf": [
        {
          "field": "type",
          "equals": "Microsoft.Resources/subscriptions/resourceGroups"
        },
        {
          "not": {
            "field": "tags['organization']",
            "equals": "Contoso"
          }
        }
      ]
    },
    "then": {
      "effect": "Deny",
      "details": {
        "field": "tags['organization']",
        "value": "Contoso"
      }
    }
  }
}

```

Dropdown 1 (under "equals" in the first condition):

- Microsoft.Resources/deployments
- Microsoft.Resources/subscriptions/resourceGroups
- Microsoft.Resources/subscriptions/resourceGroups

Dropdown 2 (under "effect" in the then block):

- Append
- Deny
- DeployIfNotExists

“MicrosoftResources/subscriptions/resourceGroups”, “Deny”

26. You have an Azure Kubernetes Service (AKS) implementation that is RBAC-enabled. You plan to use Azure Container Instances as a hosted development environment to run containers in the AKS implementation. You need to configure Azure Container Instances as a hosted environment for running the containers in AKS. Which three actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.

Select and Place:

Actions	Answer Area
Run helm init.	
Run az aks install-connector.	
Create a YAML file.	⬆
Run az role assignment create	⬆
Run kubectl apply.	

Create a YAML file, Run kubectl apply, Run helm init

27. You have an Azure DevOps project that contains a build pipeline. The build pipeline uses approximately 50 open source libraries.

You need to ensure that the project can be scanned for known security vulnerabilities in the open source libraries.

What should you do? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Object to create:

Service to use:

A build task, WhiteSource Bolt

28. You plan to use Azure Kubernetes Service (AKS) to host containers deployed from images hosted in a Docker Trusted Registry.

You need to recommend a solution for provisioning and connecting to AKS. The solution must ensure that AKS is RBAC-enabled and uses a custom service principal.

Which three commands should you recommend be run in sequence? To answer, move the appropriate commands from the list of commands to the answer area and arrange them in the correct order.

Select and Place:

Commands	Answer Area
az role assignment create	
az aks get-credentials	
az aks create	⬅️ ⬆️
az ad sp create-for-rbac	➡️ ⬆️
kubectl create	

az aks create, az ad sp create-for-rbac, kubectl create

29. You have a project in Azure DevOps named Project1 that contains two Azure DevOps pipelines named Pipeline1 and Pipeline2.

You need to ensure that Pipeline1 can deploy code successfully to an Azure web app named webapp1. The solution must ensure that Pipeline2 does not have permission to webapp1.

Which three actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.

Select and Place:

Actions	Answer Area
Create a service principal in Azure Active Directory.	
In Project1, create a service connection.	
In Pipeline1, authorize the service connection.	⬅️ ⬆️
Create a system-assigned managed identity in Azure Active Directory.	➡️ ⬆️
In Project1, configure permissions.	
In Pipeline1, create a variable.	

Create a service principle in Azure Active Directory, In Project1, create a service connection, In Project1, configure permission

30. You need to increase the security of your team's development process. Which type of security tool should you recommend for each stage of the development process? To answer, drag the appropriate security tools to the correct stages. Each security tool may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content. NOTE: Each correct selection is worth one point. Select and Place:

Security Tools Answer Area

Penetration testing	Pull request:	<input type="text"/>
Static code analysis	Continuous integration:	<input type="text"/>
Threat modeling	Continuous delivery:	<input type="text"/>

Threat modeling, Static code analysis, Penetration testing

31. Your company uses GitHub for source control. GitHub repositories store source code and store process documentation. The process documentation is saved as Microsoft Word documents that contain simple flow charts stored as .bmp files. You need to optimize the integration and versioning of the process documentation and the flow charts. The solution must meet the following requirements:

- ☞ Store documents as plain text.
- ☞ Minimize the number of files that must be maintained.
- ☞ Simplify the modification, merging, and reuse of flow charts.
- ☞ Simplify the modification, merging, and reuse of documents.

Hot Area:

Answer Area

Convert the .docx files to:	<div><div></div><div>LaTeX Typesetting (.tex)</div><div>Markdown (.md)</div><div>Portable Document Format (.pdf)</div></div>
Convert the flow charts to:	<div><div></div><div>Mermaid diagrams</div><div>Portable Network Graphics (.png)</div><div>Tagged Image File Format (.tiff)</div></div>

Markdown (.md), Mermaid diagrams

32. You are developing a full Microsoft .NET Framework solution that includes unit tests. You need to configure SonarQube to perform a code quality validation of the C# code as part of the build pipelines. Which four tasks should you perform in sequence? To answer, move the appropriate tasks from the list of tasks to the answer area and arrange them in the correct order. Select and Place:

Actions Commands Cmdlets Statements	Answer Area
Run Code Analysis	
Visual Studio Test	
Publish Build Artifacts	
Visual Studio Build	
Prepare Analysis Configuration	

Prepare Analysis Configuration, Visual Studio Build, Visual Studio Test, Run Code Analysis

33. You need to find and isolate shared code. The shared code will be maintained in a series of packages. Which three actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order. Select and Place:

Actions	Answer Area
Group the related components.	
Assign ownership to each component group.	
Create a dependency graph for the application.	
Identify the most common language used.	
Rewrite the components in the most common language.	

Create a dependency graph for the application, Group the related components, Assign ownership to each component group

34. You are creating a NuGet package. You plan to distribute the package to your development team privately. You need to share the package and test that the package can be consumed. Which four actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.

Select and Place:

Actions	Answer Area
Create a new Azure Artifacts feed.	
Configure a self-hosted agent.	
Publish a package.	⏪ ⏩
Install a package.	⏪ ⏩
Connect to an Azure Artifacts feed.	

Configure a self-hosted agent, Create a new Azure Artifacts feed, Publish a package, Connect to an Azure Artifacts feed

35. How should you complete the code to initialize App Center in the mobile application?

To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

```
MSAppCenter.start
( "{Your App Secret}",
  withServices:
)
```

[MSAnalytics.self, [MSDistribute.self, [MSPush.self,	MSAnalytics.self] MSCrashes.self] MSDistribute.self]
--	--

[MSAnalytics.self, MSCrashes.self]

36. You are implementing a package management solution for a Node.js application by using Azure Artifacts. You need to configure the development environment to connect to the package repository. The solution must minimize the likelihood that credentials will be leaked. Which file should you use to configure each connection?

To answer, drag the appropriate files to the correct connections. Each file may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content. NOTE: Each correct selection is worth one point.

Files	Answer Area
The .npmrc file in the project	Registry information: File
The .npmrc file in the user's home folder	Credentials: File
The Package.json file in the project	
The Project.json file in the project	

The Project.json file in the project, The .npmrc file in the user's home folder

37. How should you configure the filters for the Project5 trigger? To answer, select the appropriate option in the answer area.

NOTE: Each correct selection is worth one point.

Set a ▼

- branch filter to exclude
- branch filter to include
- path filter to exclude
- path filter to include

Set a ▼

- branch filter to exclude
- branch filter to include
- path filter to exclude
- path filter to include

path filter to exclude, branch filter to include

38. You have a project Azure DevOps. You plan to create a build pipeline that will deploy resources by using Azure Resource Manager templates. The templates will reference secrets stored in Azure Key Vault. You need to ensure that you can dynamically generate the resource ID of the key vault during template deployment. What should you include in the template? To answer, select the appropriate options in the answer area. NOTE: Each correct selection is worth one point.

```

"resources": [
  {
    "apiVersion": "2018-05-01",
    "name": "secrets",
    "type":  ▼
    "properties": {
      "mode": "Incremental",
      "template":  ▼,
      "templateLink":  ▼
    }
  }
],
contentVersion": "1.0.0.0",
"uri": "[uri(parameters('_artifactsLocation'),
concat('./nested/sqlserver.json',
parameters('_artifactsLocationSasToken')))]"
},
"parameters": {
  "secret": {
    "reference": {
      "keyVault": {
        "id": "[ResourceId(parameters('vaultSubscription'),
parameters('vaultResourceGroupName'),
'Microsoft.KeyVault/vaults',
parameters('vaultName'))]"
      },
      "secretName": "[parameters('secretName')]"
    }
  }
}

```

"Microsoft.Resources/deployment", "templateLink"

39. You need to configure a cloud service to store the secrets required by the mobile applications to call the share pricing service. What should you include in the solution? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Required secrets:

Certificate
Personal access token
Shared Access Authorization token
Username and password

Storage location:

Azure Data Lake
Azure Key Vault
Azure Storage with HTTP access
Azure Storage with HTTPS access

Shared Access Authorization token, Azure Storage with HTTPS access

40. You need to configure Azure Automation for the computers in Pool7. Which three actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.

Actions

Run the New-AzureRmResourceGroupDeployment Azure PowerShell cmdlet.

Create an Azure Resource Manager template file that has an extension of .json.

Run the Import-AzureRmAutomationDscConfiguration Azure PowerShell cmdlet.

Run the Start-AzureRmAutomationDscCompilationJob Azure PowerShell cmdlet.

Create a Desired State Configuration (DSC) configuration file that has an extension of .ps1.

Answer Area

1

2

3

Navigation: < > < >

Create a Desired State Configuration (DSC) configuration file that has an extension of PS1, Run the import-AzureResolutionzDscConfiguration Azure PowerShell cmdlet, Run the Start-AzureResolutionzDscConfiguration Azure PowerShell cmdlet

41. You currently use JIRA, Jenkins, and Octopus as part of your DevOps processes. You plan to use Azure DevOps to replace these tools. Which Azure DevOps service should you use to replace each tool? To answer, select the appropriate options in the answer area. NOTE: Each correct selection is worth one point.

JIRA: ▼

- Boards
- Build pipelines
- Release pipelines
- Repos

Jenkins: ▼

- Boards
- Build pipelines
- Release pipelines
- Repos

Octopus: ▼

- Boards
- Build pipelines
- Release pipelines
- Repos

Board, Build Pipelines, Release pipelines

42. You have a protect in Azure DevOps. You need to associate an automated test to a test case. Which three actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.

actions

- Associate a test case to a build pipeline
- Check in a project to the Azure DevOps repository
- Create the build pipeline
- Create a test case
- Create a test project

answer

Navigation: < > < >

Create a test project, Check in a project to the Azure DevOps repository, Add the automated test to a build pipeline

43. You are configuring the settings of a new Git repository in Azure Repos. You need to ensure that pull requests in a branch meet the following criteria before they are merged: Committed code must compile successfully. Pull requests must have a Quality Gate status of Passed in SonarCloud. Which policy type should you configure for each requirement? To answer, drag the appropriate policy types to the correct requirements. Each policy type may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view

content. NOTE: Each correct selection is worth one point.

Policy Types	
<input type="checkbox"/> A build policy	Committed code must compile successfully: <input type="text"/>
<input type="checkbox"/> A check-in policy	Pull requests must have a Quality Gate status of Passed in SonarCloud: <input type="text"/>
<input type="checkbox"/> A status policy	

A check-in policy, A Build policy

44. Your company plans to deploy an application to the following endpoints: Ten virtual machines hosted in Azure Ten virtual machines hosted in an on-premises data center environment All the virtual machines have the Azure Pipelines agent. You need to implement a release strategy for deploying the application to the endpoints. What should you recommend using to deploy the application to the endpoints? To answer, drag the appropriate components to the correct endpoints. Each component may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.

NOTE: Each correct selection is worth one point

Components	Answer Area
<input type="checkbox"/> A deployment group	
<input type="checkbox"/> A management group	Ten virtual machines hosted in Azure: <input type="text"/>
<input type="checkbox"/> A resource group	Ten virtual machines hosted in an on-premises data center environment: <input type="text"/>
<input type="checkbox"/> Application roles	

A deployment group, A deployment group

45. You have a project in Azure DevOps that uses packages from multiple public feeds. Some of the feeds are unreliable. You need to consolidate the packages into a single feed. Which three actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.

Actions

Create an npm package.

Create an Azure Artifacts feed that uses upstream sources.

Modify the configuration files to reference the Azure Artifacts feed.

Run an initial package restore.

Create a NuGet package.

Create a Microsoft Visual Studio project that includes all the packages.

>

<

Answer Area

Create a NuGet package, Create an Azure Artifacts feed that uses upstream sources, Create a Mictrosoft Visual Studio project that includes all the packages

46. You are creating a container for an ASP.NET Core app. You need to create a Dockerfile file to build the image. The solution must ensure that the size of the image is minimized. How should you configure the file? To answer, drag the appropriate values to the correct targets. Each value must be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.

Values

dotnet publish -c Release -o out

dotnet restore

microsoft/dotnet:2.2-aspnetcore-runtime

Microsoft/dotnet:2.2-sdk

Answer Area

FROM

As build-env

COPY . /app/

WORKDIR /app

RUN

FROM

COPY --from=build-env /app/out /app

WORKDIR /app

ENTRYPOINT ["dotnet", "MvcMovie.dll"]

NOTE: Each correct selection is worth one point.

microsoft/dotnet:2.2 –sdk, dotnet restore, microsoft.com/dotnet/2.2-aspnetcore-runtime

47. You have the Azure DevOps pipeline shown in the following exhibit.

PU Test

Overview

Boards

Repos

Pipelines

Pipelines

Environments

Releases

Library

Task groups

Deployment groups

Test Plans

Artifacts

Tasks

Variables

Triggers

Options

Retention

History

Save & queue

PartsUnlimitedE2E

Pipeline

Get sources

Cloud Agent

NuGet restore

Compile Application

Copy Files

Publish Artifact

Azure DevOps AZ-400

Use the drop-down menus to select the answer choice that completes each statement based on the information presented in the graphic.

Answer Area

The pipeline has job(s).

The pipeline has task(s).

1, 4

48. You need to deploy Azure Kubernetes Service (AKS) to host an application. The solution must meet the following requirements: Containers must only be published internally. AKS clusters must be able to create and manage containers in Azure. What should you use for each requirement? To answer, select the appropriate options in the answer area. NOTE: Each correct selection is worth one point.

Containers must only be published internally:

AKS clusters must be able to create and manage containers in Azure:

Azure Container Registry, An Azure service principal

49. You use Azure Pipelines to manage the build and deployment of apps. You are planning the release strategies for a new app. You need to choose strategies for the following scenarios:

- Releases will be made available to users who are grouped by their tolerance for software faults.

- Code will be deployed to enable functionality that will be available in later releases of the app.

Answer Area

Releases will be made available to users who are grouped by their tolerance for software faults:

Progressive exposure
Blue/green
Feature flags

Code will be deployed to enable functionality that will be available in later releases of the app:

Progressive exposure
Blue/green
Feature flags

When a new release occurs, the existing deployment will remain active to minimize recovery time if a return to the previous version is required:

Progressive exposure
Blue/green
Feature flags

When a new release occurs, the existing deployment will remain active to minimize recovery time if a return to the previous version is required.

Progressive exposure, Feature flags, Blue/green

50. You need to increase the security of your team's development process. Which type of security tool should you recommend for each stage of the development process? To answer, drag the appropriate security tools to the correct stages. Each security tool may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content NOTE: Each correct selection is worth one point.

Security Tools

Answer Area

Penetration testing

Pull request:

Static code analysis

Continuous integration:

Threat modeling

Continuous delivery:

Static Code Analysis, Static Code Analysis, PenTest

51. As part of your application build process, you need to deploy a group of resources to Azure by using an Azure Resource Manager template located on GitHub. Which three action should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.

Actions**Answer Area**

Create a release pipeline You need to create a new pipeline, Add an Azure Resource Group Deployment task, Set the template parameters Reference

52. You are defining release strategies for two applications as shown in the following table.

Application name	Goal
App1	Failure of App1 has a major impact on your company. You need a small group of users, who opted in to a testing App1, to test new releases of the application.
App2	You need to minimize the time it takes to deploy new releases of App2, and you must be able to roll back as quickly as possible.

Which release strategy should you use for each application? To answer, drag the appropriate release strategies to the correct applications. Each release strategy may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.

Release Strategies**Answer Area:**

App1:

App2:

NOTE: Each correct selection is worth one point.

Canary deployment, Rolling deployment

53. You are deploying a new application that uses Azure virtual machines. You plan to use the Desired State Configuration (DSC) extension on the virtual machines. You need to ensure that the virtual machines always have the same Windows features installed. Which three actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.

The screenshot shows a drag-and-drop interface. On the left, under the heading 'Actions', there is a list of six actions in a scrollable container: 'Load the file to Azure Files.', 'Create a PowerShell configuration file.', 'Create a YAML configuration file.', 'Configure the Custom Script Extension on the virtual machines.', 'Configure the DSC extension on the virtual machines.', and 'Load the file to Azure Blob storage.'. On the right, under the heading 'Answer Area', there are three empty slots for the answer, each with a circular arrow icon (up, down, and left) to its right, indicating a sequence. The interface is designed for selecting and ordering actions to solve the problem.

Create a PowerShell configuration file, Load the file to Azure Blob storage, Configure the Custom Script Extension on the virtual machines.

54. Your company has an Azure subscription named Subscription1. Subscription1 is associated to an Azure Active Directory tenant named contoso.com. You need to provision an Azure Kubernetes Services (AKS) cluster in Subscription1 and set the permissions for the cluster by using RBAC roles that reference the identities in contoso.com. Which three objects should you create in sequence? To answer, move the appropriate objects from the list of objects to the answer area and arrange them in the correct order.

The screenshot shows a drag-and-drop interface. On the left, under the heading 'Objects', there is a list of four objects in a scrollable container: 'a system-assigned managed identity', 'a cluster', 'an application registration in contoso.com', and 'an RBAC binding'. On the right, under the heading 'Answer Area', there are three empty slots for the answer, each with a red rectangular border. The interface is designed for selecting and ordering objects to solve the problem.

Create an AKS cluster, a system-assigned managed identity, a RBAC binding
Reference

55. You manage the Git repository for a large enterprise application. During the development of the application, you use a file named Config.json. You need to prevent Config.json from being committed to the source control whenever changes to the application are committed. Which three actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.

Actions		Answer Area
Run the git commit command.		
Run the git reflog expire command.		
Run the git add .gitignore command.	➤	⬆
Add Config.json to the .gitignore file.	⬅	⬇
Delete and recreate the repository.		

Delete and recreate the repository, Add Config.json to the .gitignore file, Run the git add .gitignore command

56. You need to use Azure Automation State Configuration to manage the ongoing consistency of virtual machine configurations. Which five actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order. NOTE: More than one order of answer choices is correct. You will receive credit for any of the orders you select.

Actions		Answer Area
Onboard the virtual machines to Azure Automation State Configuration.		
Check the compliance status of the node.		
Create a management group.		
Assign the node configuration.	➤	⬆
	⬅	⬇
Compile a configuration into a node configuration.		
Upload a configuration to Azure Automation State Configuration.		
Assign tags to the virtual machines.		

Assign the node configuration, Upload a configuration to Azure Automation State Configuration, Compiling a configuration into a node configuration, Onboard the virtual machines to Azure State Configuration, Check the compliance status of the node

57. Your company uses Team Foundation Server 2013 (TFS 2013). You plan to migrate to Azure DevOps. You need to recommend a migration strategy that meets the following requirements:

- Preserves the dates of Team Foundation Version Control changesets
- Preserves the changes dates of work items revisions
- Minimizes migration effort
- Migrates all TFS artifacts

What should you recommend? To answer, select the appropriate options in the answer area. NOTE: Each correct selection is worth one point.

On the TFS server:

▼

Install the TFS Java SDK.
Upgrade TFS to the most recent RTW release.
Upgrade to the most recent version of PowerShell Core.

To perform the migration:

▼

Copy the assets manually.
Use public API-based tools.
Use the TFS Database Import Service.
Use the TFS Integration Platform.

Upgrade TFS to the most recent RTM release, Use the TFS Database Import Service

58. Your company has four projects. The version control requirements for each project are shown in the following table.

Project	Requirement
Project 1	Project leads must be able to restrict access to individual files and folders in the repository.
Project 2	The version control system must enforce the following rules before merging any changes to the main branch. <ul style="list-style-type: none">• Changes must be reviewed by at least two project members.• Changes must be associated to at least one work team.
Project 3	The project members must be able to work in Azure Repos directly from Xcode.
Project 4	The release branch must only be viewable or editable by the project leads.

You plan to use Azure Repos for all the projects. Which version control system should you use for each project? To answer, drag the appropriate version control systems to the correct projects. Each version control system may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.

Version Control Systems	Answer Area
<input type="text" value="Git"/>	Project 1: <input type="text"/>
<input type="text" value="Perforce"/>	Project 2: <input type="text"/>
<input type="text" value="Subversion"/>	Project 3: <input type="text"/>
<input type="text" value="Team Foundation Version Control"/>	Project 4: <input type="text"/>

NOTE: Each correct selection is worth one point.

Team Foundation Version Control, Git, Subversion, Perforce

59. You are configuring Azure DevOps build pipelines. You plan to use hosted build agents. Which build agent pool should you use to compile each application type? To answer, drag the appropriate built agent pools to the correct application types. Each build agent pool may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content. NOTE: Each correct selection is worth one point.

Build Agent Pools	Answer Area
<input type="text" value="Hosted Windows Container"/>	
<input type="text" value="Hosted Ubuntu 1604"/>	
<input type="text" value="Hosted macOS"/>	An application that runs on iOS: <input type="text"/>
<input type="text" value="Hosted"/>	An Internet Information Services (IIS) web application that runs in Docker: <input type="text"/>
<input type="text" value="Default"/>	

Hosted macOS, Hosted

60. How should you configure the release retention policy for the investment planning applications suite? To answer, select the appropriate options in the answer area. NOTE: Each correct selection is worth one point.

Global release: ▼

Production stage: ▼

Set the default retention policy to 30 days, Set the stage retention policy to 60 days

61. You need to implement the code flow strategy for Project2 in Azure DevOps. Which three actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange in the correct order.

Actions	Answer Area
Create a fork	
Create a branch	
Add a build validation policy	
Add a build policy	
Create a repository	
Add an application access policy	

Navigation arrows: Left arrow, Right arrow, Up arrow, Down arrow

Create a repository, Create a branch, Add a build validation policy

62. You need to implement Project6. Which three actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.

Actions	Answer Area
Open the release pipeline editor.	1
Open the Triggers tab.	2
Disable the continuous integration trigger.	3
Enable Gates.	
Add a manual intervention task.	
Add Query Work Items.	

Navigation arrows: Left arrow, Right arrow, Up arrow, Down arrow

Add a manual intervention task, Add Query Work Items, Enable Gates

63. You have a project Azure DevOps. You plan to create a build pipeline that will deploy resources by using Azure Resource Manager templates. The templates will reference secrets stored in AzureKey Vault. You need to ensure that you can dynamically generate the resource ID of the key vault during template deployment. What should you include in the template? To answer, select the appropriate options in the answer area. NOTE: Each correct selection is worth one point.

```

"resources": [
  {
    "apiVersion": "2018-05-01",
    "name": "secrets",
    "type": "Microsoft KeyVault/vaults",
    "properties": {
      "mode": "Incremental",
      "deployment": {
        "template": "templateLink"
      }
    }
  },
  {
    "contentVersion": "1.0.0.0",
    "uri": "[uri(parameters('_artifactsLocation'),
      concat('./nested/sqlserver.json',
        parameters('_artifactsLocationSasToken')))]",
    "parameters": {
      "secret": {
        "reference": {
          "keyVault": {
            "id": "[resourceId(parameters('vaultSubscription'),
              parameters('vaultResourceGroupName'),
              'Microsoft.KeyVault/vaults',
              parameters('vaultName'))]"
          },
          "secretName": "[parameters('secretName')]"
        }
      }
    }
  }
]

```

“Microsoft.Resources/deployment”, “templateLink”

64. As part of your application build process, you need to deploy a group of resources to Azure by using an Azure Resource Manager template located on GitHub. Which three action should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order. Select and Place:

Actions	Answer Area
Set the template parameters.	
Create a package.	
Create a release pipeline.	⬅️
Create a job agent.	⬆️
Add an Azure Resource Group Deployment task.	⬇️

Create a release pipeline, Add an Azure Resource Group Deployment task, Set the template parameters

65. Your company has two virtual machines that run Linux in a third-party public cloud. You plan to use the company's Azure Automation State Configuration implementation to manage the two virtual machines and detect configuration drift. You need to onboard the Linux virtual machines. You install PowerShell Desired State Configuration (DSC) on the virtual machines, and then run register.py. Which three actions should you perform next in sequence? To answer, move the actions from the list of actions to the answer area and arrange them in the correct order.

Select and Place:

Actions

Answer Area

Create a DSC metaconfiguration

Copy the metaconfiguration to the virtual machines

Add the virtual machines as DSC nodes in Azure Automation

Install Windows Management Framework 5.1 on the virtual machines

From the virtual machines, run `setdsclocalconfigurationmanager.py`



Create a DSC metaconfiguration, Copy the metaconfiguration to the virtual machines, Add the virtual machines as DSC nodes in Azure Automation.

66. Your company has a project in Azure DevOps. You plan to create a release pipeline that will deploy resources by using Azure Resource Manager templates. The templates will reference secrets stored in Azure Key Vault. You need to recommend a solution for accessing the secrets stored in the key vault during deployments. The solution must use the principle of least privilege. What should you include in the recommendation? To answer, drag the appropriate configurations to the correct targets. Each configuration may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content. NOTE: Each correct selection is worth one point. Select and Place:

Configurations

Answer Area

an Azure Key Vault access policy

Restrict access to delete the key vault:

a personal access token (PAT)

Restrict access to the secrets in Key Vault by using:

RBAC

An Azure Key Vault access policy, RBAC

67. Your company has four projects. The version control requirements for each project are shown in the following table.

Project	Requirement
Project 1	Project leads must be able to restrict access to individual files and folders in the repository.
Project 2	The version control system must enforce the following rules before merging any changes to the main branch: <ul style="list-style-type: none"> Changes must be reviewed by at least two project members. Changes must be associated to at least one work team.
Project 3	The project members must be able to work in Azure Repos directly from Xcode.
Project 4	The release branch must only be viewable or editable by the project leads.

You plan to use Azure Repos for all the projects. Which version control system should you use for each project? To answer, drag the appropriate version control systems to the correct projects. Each version control system may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content. NOTE: Each correct selection is worth one point.

Version Control Systems	Answer Area
Git	Project 1: <input type="text"/>
Perforce	Project 2: <input type="text"/>
Subversion	Project 3: <input type="text"/>
Team Foundation Version Control	Project 4: <input type="text"/>

Team Foundation Version Control, Git, Subversion, Git

68. You need to create deployment files for an Azure Kubernetes Service (AKS) cluster. The deployments must meet the provisioning storage requirements shown in the following table.

Deployment	Requirement
Deployment 1	Use files stored on an SMB-based share from the container's file system.
Deployment 2	Use files on a managed disk from the container's file system.
Deployment 3	Securely access X.509 certificates from the container's file system.

Which resource type should you use for each deployment? To answer, select the appropriate options in the answer area. NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Deployment 1: ▼

azurekeyvault-flexvolume
blobfuse-flexvol
kubernetes.io/azure-disk
kubernetes.io/azure-file
volume.beta.kubernetes.io/storage-provisioner

Deployment 2: ▼

azurekeyvault-flexvolume
blobfuse-flexvol
kubernetes.io/azure-disk
kubernetes.io/azure-file
volume.beta.kubernetes.io/storage-provisioner

Deployment 3: ▼

azurekeyvault-flexvolume
blobfuse-flexvol
kubernetes.io/azure-disk
kubernetes.io/azure-file
volume.beta.kubernetes.io/storage-provisioner

Kubernetes.io/azure-file, Kubernetes.io/azure-disk, azurekeyvault-flexvolume

69. You need to recommend a solution for deploying charts by using Helm and Tiller to Azure Kubernetes Service (AKS) in an RBAC-enabled cluster. Which three commands should you recommend be run in sequence? To answer, move the appropriate commands from the list of commands to the answer area and arrange them in the correct order. Select and Place:

Commands	Answer Area
<input type="text" value="helm install"/>	
<input type="text" value="kubectl create"/>	
<input type="text" value="helm completion"/>	<input type="text"/>
<input type="text" value="helm init"/>	<input type="text"/>
<input type="text" value="helm serve"/>	

Kubectl create, helm init, helm install

70. You need to find and isolate shared code. The shared code will be maintained in a series of packages. Which three actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.

Select and Place:

Actions

Group the related components.

Assign ownership to each component group.

Create a dependency graph for the application.

Identify the most common language used.

Rewrite the components in the most common language.

Answer Area

Create a dependency graph for the application, Group the related components, Assign ownership to each component graph

71. You have a project Azure DevOps. You plan to create a build pipeline that will deploy resources by using Azure Resource Manager templates. The templates will reference secrets stored in Azure Key Vault. You need to ensure that you can dynamically generate the resource ID of the key vault during template deployment. What should you include in the template? To answer, select the appropriate options in the answer area. NOTE: Each correct selection is worth one point.

```
"resources": [
  {
    "apiVersion": "2018-05-01",
    "name": "secrets",
    "type": "Microsoft.KeyVault/vaults",
    "properties": {
      "mode": "Incremental",
      "deployment": {
        "template": "templateLink"
      }
    },
    "contentVersion": "1.0.0.0",
    "uri": "[uri(parameters('_artifactsLocation'),
      concat('/nested/sqlserver.json',
        parameters('_artifactsLocationSasToken')))]"
  },
  {
    "parameters": {
      "secret": {
        "reference": {
          "keyVault": {
            "id": "[resourceId(parameters('vaultSubscription'),
              parameters('vaultResourceGroupName'),
              'Microsoft.KeyVault/vaults',
              parameters('vaultName'))]"
          },
          "secretName": "[parameters('secretName')]"
        }
      }
    }
  }
],
```

Microsoft. Resources/deployment, templateLink

72. You are creating a container for an ASP.NET Core app. You need to create a Dockerfile file to build the image. The solution must ensure that the size of the image is minimized. How should you configure the file? To answer, drag the appropriate

values to the correct targets. Each value must be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.
NOTE: Each correct selection is worth one point. Select and Place:

Values	Answer Area
dotnet publish -c Release -o out	FROM <input type="text"/> As build-env
dotnet restore	COPY . /app/
microsoft/dotnet:2.2-aspnetcore-runtime	WORKDIR /app
Microsoft/dotnet:2.2-sdk	RUN <input type="text"/>
	FROM <input type="text"/>
	COPY --from=build-env /app/out /app
	WORKDIR /app
	ENTRYPOINT ["dotnet", "MvcMovie.dll"]

microsoft.com/dotnet/sdk:2.3, dotnet restore, microsoft.com/dotnet/2.2-aspnetcore-runtime

73. You are configuring the settings of a new Git repository in Azure Repos. You need to ensure that pull requests in a branch meet the following criteria before they are merged: Committed code must compile successfully. Pull requests must have a Quality Gate status of Passed in SonarCloud. Which policy type should you configure for each requirement? To answer, drag the appropriate policy types to the correct requirements. Each policy type may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.
NOTE: Each correct selection is worth one point.

Policy Types	
A build policy	Committed code must compile successfully: <input type="text"/>
A check-in policy	Pull requests must have a Quality Gate status of Passed in SonarCloud: <input type="text"/>
A status policy	

A check-in policy, Build policy Reference

74. You are implementing a package management solution for a Node.js application by using Azure Artifacts. You need to configure the development environment to connect to the package repository. The solution must minimize the likelihood that credentials will be leaked. Which file should you use to configure each connection? To answer, drag the appropriate files to the correct connections. Each file may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content. NOTE: Each correct selection is worth one point.

Select and Place:

Files	Answer Area
The .npmrc file in the project	<div>Feed registry information: <input type="text"/></div> <div>Credentials: <input type="text"/></div>
The .npmrc file in the user's home folder	
The Package.json file in the project	
The Project.json file in the project	

The .npmrc file the project, the .npmrc file in the user's home folder

75. You have an Azure subscription that contains a resources group named RG1. RG1 contains the following resources:

- Four Azure virtual machines that run Windows Server and have Internet Information Services (IIS) installed.
- SQL Server on an Azure virtual machine.
- An Azure Load Balancer.

You need to deploy an application to the virtual machines in RG1 by using Azure Pipelines. Which four actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order. NOTE: More than one order of answer choices is correct. You will receive credit for any of the correct orders you select. Select and Place:

Actions	Answer Area
Create an agent pool	<div><div>></div><div><</div></div> <div><div>^</div><div>v</div></div>
Add the Puppet Agent extension to the virtual machines	
Add and configure a deployment group job for the pipeline	
Add the Azure Pipelines Agent extension to the virtual machines	
Create a deployment group	
Execute the pipeline	

Create an agent pool, Create a deployment group, Add the Azure Pipelines Agent extension to the virtual machines, Add and configure a deployment group job for the pipeline

76. You have a project in Azure DevOps. You need to associate an automated test to a test case. Which three actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them

in the correct order. Select and Place:

Actions	Answer Area
Debug the project	
Create a test project	
Create a work item	➤
Check in a project to the Azure DevOps repository	➤
Add the automated test to a build pipeline	⬆

Create a test project, Check in a project into an Azure DevOps repository, Add the automated test to a build pipeline

77. You need to use Azure Automation State Configuration to manage the ongoing consistency of virtual machine configurations. Which five actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order. NOTE: More than one order of answer choices is correct. You will receive credit for any of the orders you select.

Actions	Answer Area
Onboard the virtual machines to Azure Automation State Configuration.	
Check the compliance status of the node.	
Create a management group.	
Assign the node configuration.	➤
	⬆
Compile a configuration into a node configuration.	
Upload a configuration to Azure Automation State Configuration.	
Assign tags to the virtual machines.	

Assign the node configuration, Upload a configuration to Azure Automation State Configuration, Compiling a configuration into a node configuration, Check the compliance status of the node

78. You are configuring a release pipeline in Azure DevOps as shown in the exhibit.



Use the drop-down menus to select the answer choice that answers each question based on the information presented in the graphic. NOTE: Each correct selection is worth one point.

How many stages have triggers set?	<div>0</div> <div>1</div> <div>2</div> <div>3</div> <div>4</div> <div>5</div> <div>6</div> <div>7</div>
Which component should you modify to enable continuous delivery?	<div>The Development stage</div> <div>The Internal Review stage</div> <div>The Production stage</div> <div>The Web Application artifact</div>

5, The Internal Review stage

79. Where should the build and release agents for the investment planning application suite run? To answer, select the appropriate options in the answer area. NOTE: Each correct selection is worth one point.

Build agent:	<div>A hosted service</div> <div>A source control system</div> <div>The developers' computers</div>
Release agent:	<div>A hosted service</div> <div>A source control system</div> <div>The developers' computers</div>

A source control system, A hosted service

80. You need to deploy Internet Information Services (IIS) to an Azure virtual machine that runs Windows Server 2019. How should you complete the Desired State Configuration (DSQ configuration script? To answer, drag the appropriate values to the correct locations. Each value may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content. NOTE: Each correct selection is worth one point.

Values

Configuration

DependsOn

File

IncludeAllSubFeature

WindowsFeature

Answer Area

Value

MyDsc {

Node 'Server1' {

Value

MyConfigDetail {

Ensure = 'Present'

Name = 'Web-Server'

}

}

}

MyDsc

Configuration, WindowsFeature Reference

81. You are configuring an Azure DevOps deployment pipeline. The deployed application will authenticate to a web service by using a secret stored in an Azure keyvault. You need to use the secret in the deployment pipeline. Which three actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.

Actions

Create a service principal in Azure Active Directory (Azure AD).

Add an app registration in Azure Active Directory (Azure AD).

Configure an access policy in the key vault.

Generate a self-signed certificate.

Add an Azure Resource Manager service connection to the pipeline.

Export a certificate from the key vault.

Answer Area



Create a service principal in Azure Active Directory (Azure AD), Configure an access policy in the key vault, Add an Azure Resource Manager service connection to the pipeline

82 You are finalizing a release in GitHub. You need to apply the following labels to the release:

- Name
- Email
- Release v3.0
- Release date

How should you complete the git command? To answer, select the appropriate options in the answer area. NOTE: Each correct selection is worth one point.

git

add
commit
push
tag

-a
-b
-c
-m

 v3.0

-a
-b
-c
-m

 "Release v3.0"

tag, -a

83. Your company uses a Git source-code repository. You plan to implement GitFlow as a workflow strategy. You need to identify which branch types are used for production code and preproduction code in the strategy. Which branch type should you identify for each codetype? To answer, select the appropriate options in the answer area. NOTE: Each correct selection is worth one point.

Answer Area

Production code:

Master
Feature
Develop

Preproduction code:

Master
Feature
Develop

Master, Develop

84. You have an application named App1 that has a custom domain of app.contoso.com. You create a test in Azure Application Insights as shown in the following exhibit:

Create test

Basic Information

Test name: availability

Text type: URL ping test

URL: http://app.contoso.com

Enable dependent requests: ☒

Enable retries for availability test failures: ☐

Test frequency: 5 minutes

Test locations: 4 location(s) configured

Success criteria

Test Timeout: 30 seconds

HTTP response: ☒

Status code must equal: 200

Content match: ☒

Content must contain: Copyright Contoso

Alerts: Enabled

Create

Use the drop-down menus to select the answer choice that completes each statement based on the information presented in the graphic. NOTE: Each correct selection is worth one point.

The test will execute [answer choice].

every 30 seconds at a random location
every 30 seconds per location
every five minutes at a random location
every five minutes per location

The test will pass if [answer choice] within 30 seconds.

App1 responds to an ICMP ping
the HTML of App1 and the HTML from URLs in <a> tags load
all the HTML, JavaScripts, and images of App1 load

Every five minutes at a random location, all the HTML, JavaScripts and images of App1 load

85. You need to implement the code flow strategy for Project2 in Azure DevOps. Which three actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.

Actions

Create a repository
Add a build policy for the fork.
Create a branch.
Add a build policy for the master branch.
Add an application access policy.
Create a fork.

Answer Area

Create a repository, Add a build policy for the master branch, Create a branch

86. You manage the Git repository for a large enterprise application. During the development of the application, you use a file named Config.json. You need to prevent Config.json from being committed to the source control whenever changes to the application are committed. Which three actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.

Actions

Run the git commit command.

Run the git rebase --expire command.

Run the git add .gitignore command.

Add Config.json to the .gitignore file.

Delete and recreate the repository.

Answer Area

>

<

<

>

Delete and recreate the repository, Add Config.json to the .gitignore file, Run the git add .gitignore command

87. You are designing YAML-based Azure pipelines for the apps shown in the following table.

Name	Platform	Release requirements
App1	Azure virtual machine	Replace a fixed set of existing instances of the previous version of App1 with instances of the new version of the app in each iteration.
App2	Azure Kubernetes Service (AKS) cluster	Roll out a limited deployment of the new version of App2 to validate the functionality of the app. Once testing is successful, expand the rollout.

You need to configure the YAML strategy value for each app. The solution must minimize app downtime. Which value should you configure for each app? To answer, select the appropriate options in the answer area. NOTE: Each correct selection is worth one point.

App1:

▼

canary

rolling

runonce

App2:

▼

canary

rolling

runonce

rolling, canary

88. You use GitHub Enterprise Server as a source code repository. You create an Azure DevOps organization named Contoso. In the Contoso organization, you create a project named Project 1. You need to link GitHub commits, pull requests, and issues to the work items of Project 1. The solution must use OAuth-based authentication

Which three actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.

Actions	Answer Area
From Project Settings in Azure DevOps, create a service hook subscription.	
From Organization settings in Azure DevOps, add an OAuth configuration.	
From Developer settings in GitHub Enterprise Server, register a new OAuth app.	
From Project Settings in Azure DevOps, add a GitHub connection.	
From Developer settings in GitHub Enterprise Server, generate a private key.	
From Organization settings in Azure DevOps, connect to Azure Active Directory (Azure AD).	

From Developer settings in GitHub Enterprise Server, register a new OAuth app, Organization settings in Azure DevOps, add an OAuth configuration Register your OAuth configuration in Azure DevOps Services, From Project Settings in Azure DevOps, add a GitHub connection, Connect Azure DevOps Services to GitHub Enterprise Server

89. Your company uses GitHub for source control. GitHub repositories store source code and store process documentation. The process documentation is saved as Microsoft Word documents that contain simple flow charts stored as .bmp files. You need to optimize the integration and versioning of the process documentation and the flow charts. The solution must meet the following requirements:

- Store documents as plain text.
- Minimize the number of files that must be maintained.
- Simplify the modification, merging, and reuse of flow charts.
- Simplify the modification, merging, and reuse of documents.

What should you include in the solution? To answer, select the appropriate options in the answer area. NOTE: Each correct selection is worth one point.

Convert the .docx files to:	<input type="checkbox"/> LaTeX Typesetting (.tex) <input checked="" type="checkbox"/> Markdown (.md) <input type="checkbox"/> Portable Document Format (.pdf)
Convert the flow charts to:	<input checked="" type="checkbox"/> Mermaid graph diagrams (.md) <input type="checkbox"/> Portable Network Graphics (.png) <input type="checkbox"/> Tagged Image File Format (.tiff)

Markdown (.md), Mermaid graph diagrams (.md)

90. You are implementing an Azure DevOps strategy for mobile devices using App Center. You plan to use distribution groups to control access to releases. You need to create the distribution groups shown in the following table.

Name	Use
Group1	Application testers who are invited by email
Group2	Early release users who use unauthenticated public links
Group3	Application testers for all the apps of your company

Which type of distribution group should you use for each group? To answer, drag the appropriate group types to the correct locations. Each group type may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content. NOTE: Each correct selection is worth one point. Select and Place:

Private

●

Group1:

Public

●

Group2:

Shared

●

Group3:

Private, Public, Shared

91. You are building an application that has the following assets:

- ☞ Source code
- ☞ Logs from automated tests and builds
- ☞ Large and frequently updated binary assets
- ☞ A common library used by multiple applications

Where should you store each asset? To answer, drag the appropriate Azure services to the correct assets. Each service may be used once. You may need to drag the split bar between panes or scroll to view content. NOTE: Each correct selection is worth one point. Select and Place:

Azure Services	Answer Area
Azure Artifacts	Source code: <input style="width: 120px;" type="text"/>
Azure Pipelines	A common library used by multiple applications: <input style="width: 120px;" type="text"/>
Azure Repos	Logs from automated tests and builds: <input style="width: 120px;" type="text"/>
Azure Storage	Large and frequently updated binary assets: <input style="width: 120px;" type="text"/>
Azure Test Plans	

Azure Repos, Azure Artifacts, Azure Pipelines, Azure Storage

92. You are creating a NuGet package. You plan to distribute the package to your development team privately. You need to share the package and test that the package can be consumed. Which four actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.

Actions	Answer Area
Create a new Azure Artifacts feed.	
Configure a self-hosted agent.	
Publish a package.	⬅️ ⬆️
Install a package.	➡️ ⬇️
Connect to an Azure Artifacts feed.	

Configure a self-hosted agent, Create a new Azure Artifacts feed, Publish the package, Connect to an Azure Artifacts feed

You are configuring Azure Pipelines for three projects in Azure DevOps as shown in the following table

Project name	Project Details
Project1	The project team provides preconfigured YAML files that it wants to use to manage future pipeline configuration changes.
Project2	The sensitivity of the project requires that the source code be hosted on the managed Windows server on your company's network.
Project3	The project team requires a centralized version control system to ensure that developers work with the most recent version.

Which version control system should you recommend for each project? To answer, drag the appropriate version control systems to the correct projects. Each version control system may be used once, more than once, or not at all. You may need to drag the split

bar between panes or scroll to view content. NOTE: Each correct selection is worth one point.

Version Control Systems	Answer Area
Assembla Subversion	Project1: <input type="text"/>
Bitbucket Cloud	Project2: <input type="text"/>
Git in Azure Repos	Project3: <input type="text"/>
GitHub Enterprise	

Git in Azure Repos, Github Enterprise, Bitbucket cloud

93. You plan to use Azure Kubernetes Service (AKS) to host containers deployed from images hosted in a Docker Trusted Registry. You need to recommend a solution for provisioning and connecting to AKS. The solution must ensure that AKS is RBAC-enabled and uses a custom serviceprincipal. Which three commands should you recommend be run in sequence? To answer, move the appropriate commands from the list of commands to the answer area and arrange them in the correct order.

Commands	Answer Area
kubectl create	1
az role assignment create	2
az aks get-credentials	3
az ad sp create-for-rbac	
az aks create	

az aks create, az aks get-credentials, az ad sp create-for-rbac

94. You need to configure Azure Automation for the computers in Pool7. Which three actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.

Actions	Answer Area
Run the New-AzureResourceGroupDeployment Azure PowerShell cmdlet.	1
Create an Azure Resource Manager template file that has an extension of .json.	2
Run the Import-AzureAutomationDscConfiguration Azure PowerShell cmdlet.	3
Run the Start-AzureAutomationDscCompilationJob Azure PowerShell cmdlet.	
Create a Desired State Configuration (DSC) configuration file that has an extension of .ps1.	

Create a Desired State Configuration (DSC) configuration file that has an extension of .ps1, Run the Import - AzureRmAutomationDscConfiguration Azure PowerShell cmdlet, Run the Start-AzureRmAutomationDscCompilationJob Azure PowerShell cmdlet

95. You need to configure Azure Automation for the computer in Group7. Which three actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.

Actions	Answer Area
Run the Import-AzureRmAutomationDscConfiguration Azure PowerShell cmdlet	
Create a Desired State Configuration (DSC) configuration file that has an extension of ps1	
Run the New-AzureRmResourceGroupDeployment Azure PowerShell cmdlet	⬅️ ➡️
Run the Start-AzureRmAutomationDscCompilationJob Azure PowerShell cmdlet	⬅️ ➡️
Create an Azure Resource Manager template file that has an extension of .json.	

Create a Desired State Configuration (DSC) configuration file that has an extension of .ps1, Run the Import-AzureRmAutomationDscConfiguration Azure Powershell cmdlet, Run the Start-AzureRmAutomationDscCompilationJob Azure Powershellcmdlet, The Start-AzureRmAutomationDscCompilationJob cmdlet

96. How should you configure the filters for the Project5 trigger? To answer, select the appropriate option in the answer area. NOTE: Each correct selection is worth one point.

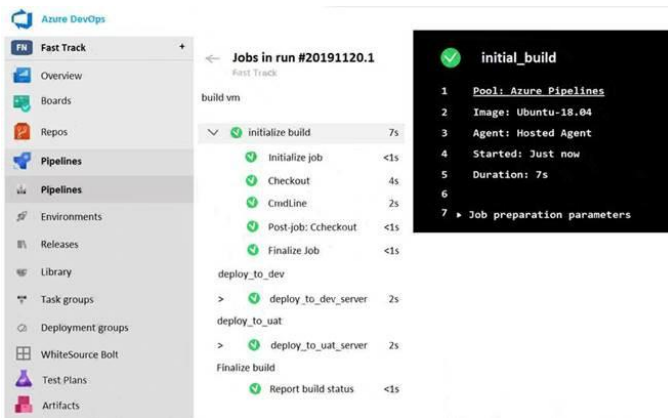
Set a /folder1.

Set a /.

@

Patch filter to exclude, Branch filter to include

97. Your company uses Azure DevOps to deploy infrastructures to Azure. Pipelines are developed by using YAML. You execute a pipeline and receive the results in the web portal for Azure Pipelines as shown in the following exhibit.



Use the drop-down menus to select the answer choice that completes each statement based on the information presented in the graphic. NOTE: Each correct selection is worth one point.

The pipeline contains

Build_vm contains

four stages, one job

98. You have an Azure DevOps release pipeline as shown in the following exhibit.



You need to complete the pipeline to configure OWASP ZAP for security testing. Which five Azure CLI tasks should you add in sequence? To answer, move the tasks

from the list of tasks to the answer area and arrange them in the correct order.
Select and Place:

Tasks	Answer Area
Convert Report Format	
Build machine image	
Publish Test Results	⤵
Destroy OWASP Container	⤴
Call the Baseline Scan	
Docker CLI installer	
Download the file	

Call the Baseline Scan, Download the file, Convert Report Format, Publish Test Results, Destroy OWASP Container

HOTSPOT -

To complete the sentence, select the appropriate option in the answer area.

Hot Area:

Answer Area

When you are implementing a Software as a Service (SaaS) solution, you are responsible for

configuring high availability.
defining scalability rules.
installing the SaaS solution.
configuring the SaaS solution.

Configuring the SaaS solution

HOTSPOT -

To complete the sentence, select the appropriate option in the answer area.

Hot Area:

Answer Area

An organization that hosts its infrastructure no longer requires a data center .

in a private cloud
in a hybrid cloud
in the public cloud
on a Hyper-V host

In the public cloud

You have an Azure Kubernetes Service (AKS) pod.

You need to configure a probe to perform the following actions:

- ☞ Confirm that the pod is responding to service requests.
- ☞ Check the status of the pod four times a minute.
- ☞ Initiate a shutdown if the pod is unresponsive.

How should you complete the YAML configuration file? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

```
apiVersion: v1
kind: Pod
metadata:
  labels:
    test: readiness-and-liveness
  name: readiness-http
spec:
  containers:
  - name: container1
    image: k8s.gcr.io/readiness-and-liveness
    args:
    - /server
```

livenessProbe:
readinessProbe:
shutdownProbe:
startupProbe:

```
  httpGet:
    path: /checknow
    port: 8123
    httpHeaders:
    - name: Custom-Header
      value: CheckNow
```

initialDelaySeconds: 15
periodSeconds: 15
timeoutSeconds: 15

readinessProbe:

Scenario Question

1. You run the Register-AzureRmAutomationDscNode command in your company's environment. You need to make sure that your company's test servers remain correctly configured, regardless of configuration drift. Solution: You set the - ConfigurationMode parameter to ApplyOnly. Does the solution meet the goal?
 - a. Yes
 - b. No**
2. You run the Register-AzureRmAutomationDscNode command in your company's environment. You need to make sure that your company's test servers remain correctly configured, regardless of configuration drift. Solution: You set the - ConfigurationMode parameter to ApplyAndMonitor. Does the solution meet the goal?
 - a. Yes
 - b. No**
3. You run the Register-AzureRmAutomationDscNode command in your company's environment. You need to make sure that your company's test servers remain

correctly configured, regardless of configuration drift. Solution: You set the - ConfigurationMode parameter to ApplyAndAutocorrect. Does the solution meet the goal?

a. **Yes**

b. No

4. Your company makes use of Azure SQL Database Intelligent Insights and Azure Application Insights for monitoring purposes. You have been tasked with analyzing the monitoring using ad-hoc queries. You need to utilize the correct query language. Solution: You use the Contextual Query Language (CQL). Does the solution meet the goal?

a. Yes

b. **No**

5. Your company makes use of Azure SQL Database Intelligent Insights and Azure Application Insights for monitoring purposes. You have been tasked with analyzing the monitoring using ad-hoc queries. You need to utilize the correct query language. Solution: You use the Transact-SQL. Does the solution meet the goal?

a. Yes

b. **No**

6. Your company makes use of Azure SQL Database Intelligent Insights and Azure Application Insights for monitoring purposes. You have been tasked with analyzing the monitoring using ad-hoc queries. You need to utilize the correct query language. Solution: You use Azure Log Analytics. Does the solution meet the goal?

a. **Yes**

b. No

7. You have an Azure DevOps organization named Contoso and an Azure subscription. The subscription contains an Azure virtual machine scale set named VMSS1 that is configured for autoscaling. You have a project in Azure DevOps named Project1. Project1 is used to build a web app named App1 and deploy App1 to VMSS1. You need to ensure that an email alert is generated whenever VMSS1 scales in or out. Solution: From Azure Monitor, configure the autoscale settings. Does this meet the goal?

a. Yes

b. **No**

8. You manage a project in Azure DevOps. You need to prevent the configuration of the project from changing over time. Solution: Add a code coverage step to the build pipelines. Does this meet the goal?

a. Yes

b. **No**

9. You manage a project in Azure DevOps. You need to prevent the configuration of the project from changing over time. Solution: Implement Continuous Integration for the project. Does this meet the goal?

a. Yes

b. **No**

10. You manage a project in Azure DevOps. You need to prevent the configuration of the project from changing over time. Solution: Implement Continuous Assurance for the project. Does this meet the goal?
- a. **Yes**
 - b. No
11. You manage a project in Azure DevOps. You need to prevent the configuration of the project from changing over time. Solution: Perform a Subscription Health scan when packages are created. Does this meet the goal?
- a. Yes
 - b. **No**
12. You have an Azure DevOps organization named Contoso and an Azure subscription. The subscription contains an Azure virtual machine scale set named VMSS1 that is configured for autoscaling. You have a project in Azure DevOps named Project1. Project1 is used to build a web app named App1 and deploy App1 to VMSS1. You need to ensure that an email alert is generated whenever VMSS1 scales in or out. Solution: From Azure DevOps, configure the Notifications settings for Project1. Does this meet the goal?
- a. Yes
 - b. **No**
13. You have an Azure DevOps organization named Contoso and an Azure subscription. The subscription contains an Azure virtual machine scale set named VMSS1 that is configured for autoscaling. You have a project in Azure DevOps named Project1. Project1 is used to build a web app named App1 and deploy App1 to VMSS1. You need to ensure that an email alert is generated whenever VMSS1 scales in or out. Solution: From Azure DevOps, configure the Service hooks settings for Project1. Does this meet the goal?
- a. Yes
 - b. **No**
14. You have an Azure DevOps organization named Contoso and an Azure subscription. The subscription contains an Azure virtual machine scale set named VMSS1 that is configured for autoscaling. You have a project in Azure DevOps named Project1. Project1 is used to build a web app named App1 and deploy App1 to VMSS1. You need to ensure that an email alert is generated whenever VMSS1 scales in or out. Solution: From Azure Monitor, create an action group. Does this meet the goal?
- a. **Yes**
 - b. No
15. You plan to update the Azure DevOps strategy of your company. You need to identify the following issues as they occur during the company's development process:
- ☞ Licensing violations
 - ☞ Prohibited libraries
- Solution: You implement continuous integration. Does this meet the goal?
- a. **Yes**
 - b. No

16. You plan to update the Azure DevOps strategy of your company. You need to identify the following issues as they occur during the company's development process:

☞ Licensing violations

☞ Prohibited libraries

Solution: You implement pre-deployment gates. Does this meet the goal?

a. Yes

b. **No**

17. You plan to update the Azure DevOps strategy of your company. You need to identify the following issues as they occur during the company's development process:

☞ Licensing violations

☞ Prohibited libraries

Solution: You implement automated security testing. Does this meet the goal?

a. Yes

b. **No**

18. You plan to update the Azure DevOps strategy of your company. You need to identify the following issues as they occur during the company's development process:

☞ Licensing violations

☞ Prohibited libraries

Solution: You implement continuous deployment. Does this meet the goal?

a. Yes

b. **No**

19. The lead developer at your company reports that adding new application features takes longer than expected due to a large accumulated technical debt. You need to recommend changes to reduce the accumulated technical debt. Solution: You recommend reducing the code coupling and the dependency cycles? Does this meet the goal?

a. **Yes**

b. No

20. The lead developer at your company reports that adding new application features takes longer than expected due to a large accumulated technical debt. You need to recommend changes to reduce the accumulated technical debt. Solution: You recommend increasing the code duplication. Does this meet the goal?

a. Yes

b. **No**

21. The lead developer at your company reports that adding new application features takes longer than expected due to a large accumulated technical debt. You need to recommend changes to reduce the accumulated technical debt. Solution: You recommend increasing the test coverage. Does this meet the goal?

a. Yes

b. **No**

22. The lead developer at your company reports that adding new application features takes longer than expected due to a large accumulated technical debt. You need

to recommend changes to reduce the accumulated technical debt. Solution: You recommend reducing the code complexity. Does this meet the goal?

a. **Yes**

b. No

23. You integrate a cloud-hosted Jenkins server and a new Azure DevOps deployment. You need Azure DevOps to send a notification to Jenkins when a developer commits changes to a branch in Azure Repos. Solution: You create a service hook subscription that uses the build completed event. Does this meet the goal?

a. **Yes**

b. No

24. You integrate a cloud-hosted Jenkins server and a new Azure DevOps deployment. You need Azure DevOps to send a notification to Jenkins when a developer commits changes to a branch in Azure Repos. Solution: You add a trigger to the build pipeline. Does this meet the goal?

a. Yes

b. **No**

25. Your company has a project in Azure DevOps for a new web application. You need to ensure that when code is checked in, a build runs automatically. Solution: From the Pre-deployment conditions settings of the release pipeline, you select After stage. Does this meet the goal?

a. Yes

b. **No**

26. Your company has a project in Azure DevOps for a new web application. You need to ensure that when code is checked in, a build runs automatically. Solution: From the Continuous deployment trigger settings of the release pipeline, you enable the Pull request trigger setting. Does the meet the goal?

a. Yes

b. **No**

27. You have an approval process that contains a condition. The condition requires that releases be approved by a team leader before they are deployed. You have a policy stating that approvals must occur within eight hours. You discover that deployments fail if the approvals take longer than two hours. You need to ensure that the deployments only fail if the approvals take longer than eight hours. Solution: From Pre-deployment conditions, you modify the Timeout setting for pre-deployment approvals. Does this meet the goal?

a. Yes

b. **No**

28. You need to recommend an integration strategy for the build process of a Java application. The solution must meet the following requirements:

- The builds must access an on-premises dependency management system.
- The build outputs must be stored as Server artifacts in Azure DevOps.
- The source code must be stored in a Git repository in Azure DevOps.

Solution: Configure an Octopus Tentacle on an on-premises machine. Use the Package Application task in the build pipeline. Does this meet the goal?

a. **Yes**

b. No

29. You plan to create a release pipeline that will deploy Azure resources by using Azure Resource Manager templates. The release pipeline will create the following resources:

- Two resource groups
- Four Azure virtual machines in one resource group
- Two Azure SQL databases in other resource group.

You need to recommend a solution to deploy the resources. Solution: Create a main template that will deploy the resources in one resource group and a nested template that will deploy the resources in the other resource group. Does this meet the goal?

a. Yes

b. **No**

30. Your company has a pipeline in Azure DevOps for a new web application. You need to ensure that when code is checked in, a build runs automatically.

Solution: From the Triggers tab of the build pipeline, you selected Batch changes while a build is in progress. Does this meet the goal?

a. Yes

b. **No**

31. You need to recommend an integration strategy for the build process of a Java application. The solution must meet the following requirements:

- The builds must access an on-premises dependency management system.
- The build outputs must be stored as Server artifacts in Azure DevOps.
- The source code must be stored in a Git repository in Azure DevOps.

Solution: Configure the build pipeline to use a Hosted Ubuntu agent pool. Include the Java Tool Installer task in the build pipeline. Does this meet the goal?

a. **Yes**

b. No

32. Your company uses Azure DevOps to manage the build and release processes for applications. You use a Git repository for applications source control. You need to implement a pull request strategy that reduces the history volume in the master branch. Solution: You implement a pull request strategy that uses a three-way merge. Does this meet the goal?

a. Yes

b. **No**

33. You integrate a cloud-hosted Jenkins server and a new Azure DevOps deployment. You need Azure DevOps to send a notification to Jenkins when a developer commits changes to a branch in Azure Repos. Solution: You create an email subscription to an Azure DevOps notification. Does this meet the goal?

a. Yes

b. **No**

34. Your company uses Azure DevOps to manage the build and release processes for applications. You use a Git repository for applications source control. You need to implement a pull request strategy that reduces the history volume in the master branch. Solution: You implement a pull request strategy that uses an explicit merge. Does this meet the goal?

a. Yes

b. No

35. You plan to create a release pipeline that will deploy Azure resources by using Azure Resource Manager templates. The release pipeline will create the following resources:

- Two resource groups
- Four Azure virtual machines in one resource group
- Two Azure SQL databases in other resource group

You need to recommend a solution to deploy the resources. Solution: Create a main template that has two linked templates, each of which will deploy the resource in its respective group. Does this meet the goal?

a. Yes

b. No

36. You have an Azure DevOps project. Your build process creates several artifacts. You need to deploy the artifacts to on-premises servers. Solution: You deploy an Azure self-hosted agent to an on-premises server. You add a Copy and Publish Build Artifacts task to the deployment pipeline. Does this meet the goal?

a. Yes

b. No

37. Your company uses Azure DevOps to manage the build and release processes for applications. You use a Git repository for applications source control. You need to implement a pull request strategy that reduces the history volume in the master branch. Solution: You implement a pull request strategy that uses fast-forward merges. Does this meet the goal?

a. Yes

b. No

38. Your company has a prefect in Azure DevOps for a new web application. You need to ensure that when code is checked in, a build runs automatically. Solution: From the Triggers tab of the build pipeline, you select Enable continuous integration Does the meet the goal?

a. Yes

b. No

39. You have an approval process that contains a condition. The condition requires that releases be approved by a team leader before they are deployed. You have a poky stating that approvals must occur within eight hour. You discover that deployments fail if the approvals take longer than two hours. You need to ensure that the deployments only fail if the approvals take longer thaneight hours. Solution: From Post-deployment conditions, you modify the Time between reevaluation of gates option.Does this meet the goal?

a. Yes

b. No

40. You have an approval process that contains a condition. The condition requires that releases be approved by a team leader before they are deployed. You have a policy stating that approvals must occur within eight hours. You discover that deployments fail if the approvals lake longer than two hours. You need to ensure that the deployments only fail if the approvals take longer thaneight hours.

Solution: From Pre-deployment conditions, you modify the Timeout setting for predeployment approvals. Does this meet the goal?

a. Yes

b. No

41. Your company has a project in Azure DevOps for a new web application. You need to ensure that when code is checked in, a build runs automatically. Solution: From the Pre-deployment conditions settings of the release pipeline, you select Batch changes while a build is in progress. Does this meet the goal?

a. Yes

b. No

42. You have an approval process that contains a condition. The condition requires that releases be approved by a team leader before they are deployed. You have a policy stating that approvals must occur within eight hours. You discover that deployment fail if the approvals take longer than two hours. You need to ensure that the deployments only fail if the approvals take longer than eight hours.

Solution: From Pre-deployment conditions, you modify the Time between reevaluation of gates option. Does this meet the goal?

a. Yes

b. No

43. You integrate a cloud-hosted Jenkins server and a new Azure DevOps deployment. You need Azure DevOps to send a notification to Jenkins when a developer commits changes to a branch in Azure Repos. Solution: You create a service hook subscription that uses the build completed event. Does this meet the goal?

a. Yes

b. No

44. You integrate a cloud-hosted Jenkins server and a new Azure DevOps deployment. You need Azure DevOps to send a notification to Jenkins when a developer commits changes to a branch in Azure Repos. Solution: You create a service hook subscription that uses the code pushed event. Does this meet the goal?

a. Yes

b. NO

45. You plan to create a release pipeline that will deploy Azure resources by using Azure Resource Manager templates. The release pipeline will create the following resources:

- Two resource groups
- Four Azure virtual machines in one resource group
- Two Azure SQL databases in other resource group

You need to recommend a solution to deploy the resources. Solution: Create two standalone templates, each of which will deploy the resources in its respective group. Does this meet the goal?

a. Yes

b. No

46. Pipelines to build and test a React.js application. You have a pipeline that has a single job. You discover that installing JavaScript packages from npm takes

approximately five minutes each time you run the pipeline. You need to recommend a solution to reduce the pipeline execution time. Solution: You recommend defining a container job that uses a custom container that has the JavaScript packages preinstalled. Does this meet the goal?

a. Yes

b. No

47. You have an approval process that contains a condition. The condition requires that releases be approved by a team leader before they are deployed. You have a policy stating that approvals must occur within eight hours. You discover that deployments fail if the approvals take longer than two hours. You need to ensure that the deployments only fail if the approvals take longer than eight hours. Solution: From Post-deployment conditions, you modify the Time between re-evaluation of gates option. Does this meet the goal?

a. Yes

b. No

48. You plan to create a release pipeline that will deploy Azure resources by using Azure Resource Manager templates. The release pipeline will create the following resources:

- Two resource groups
- Four Azure virtual machines in one resource group
- Two Azure SQL databases in other resource group

You need to recommend a solution to deploy the resources. Solution: Create a single standalone template that will deploy all the resources. Does this meet the goal?

a. Yes

b. No

49. You use Azure Pipelines to build and test a React.js application. You have a pipeline that has a single job. You discover that installing JavaScript packages from npm takes approximately five minutes each time you run the pipeline. You need to recommend a solution to reduce the pipeline execution time. Solution: You recommend enabling parallel jobs for the pipeline. Does this meet the goal?

a. Yes

b. No

50. You need to recommend an integration strategy for the build process of a Java application. The solution must meet the following requirements: The builds must access an on-premises dependency management system. The build outputs must be stored as Server artifacts in Azure DevOps. The source code must be stored in a Git repository in Azure DevOps. Solution: Configure the build pipeline to use a Hosted VS 2017 agent pool. Include the Java Tool Installer task in the build pipeline. Does this meet the goal?

a. Yes

b. No

51. You need to recommend an integration strategy for the build process of a Java application. The solution must meet the following requirements:

- The builds must access an on-premises dependency management system.
- The build outputs must be stored as Server artifacts in Azure DevOps.
- The source code must be stored in a Git repository in Azure DevOps.

Solution: Configure the build pipeline to use a Microsoft-hosted agent pool running a Linux image. Include the Java Tool Installer task in the build pipeline. Does this meet the goal?

a. Yes

b. No

52. You have an approval process that contains a condition. The condition requires that releases be approved by a team leader before they are deployed. You have a policy stating that approvals must occur within eight hours. You discover that deployment fail if the approvals take longer than two hours. You need to ensure that the deployments only fail if the approvals take longer than eight hours.

Solution: From Pre-deployment conditions, you modify the Timebetween re-evaluation of gates option. Does this meet the goal?

a. Yes

b. No

53. You have an Azure DevOps project. Your build process creates several artifacts. You need to deploy the artifacts to on-premises servers. Solution: You deploy an Octopus Deploy server. You deploy a polled Tentacle agent to an on-premises server. You add an Octopus task to the deployment pipeline. Does this meet the goal?

a. Yes

b. No

54. You have an approval process that contains a condition. The condition requires that releases be approved by a team leader before they are deployed. You have a policy stating that approvals must occur within eight hours. You discover that deployment fail if the approvals take longer than two hours. You need to ensure that the deployments only fail if the approvals take longer than eight hours.

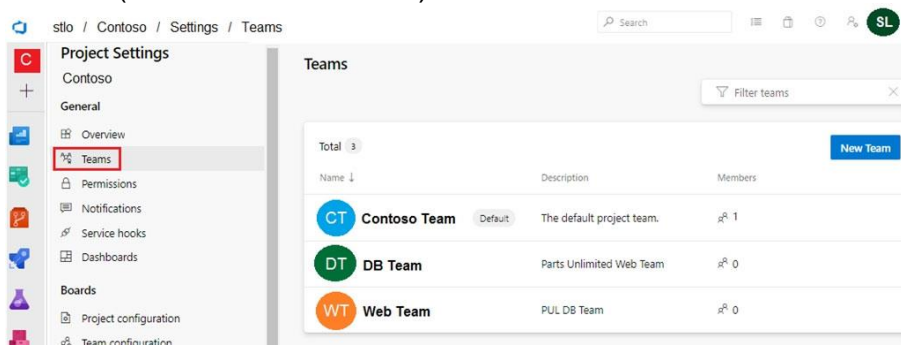
Solution: From Post-deployment conditions, you modify the Timeout setting for post-deployment approvals. Does this meet the goal?

a. Yes

b. No

True & False

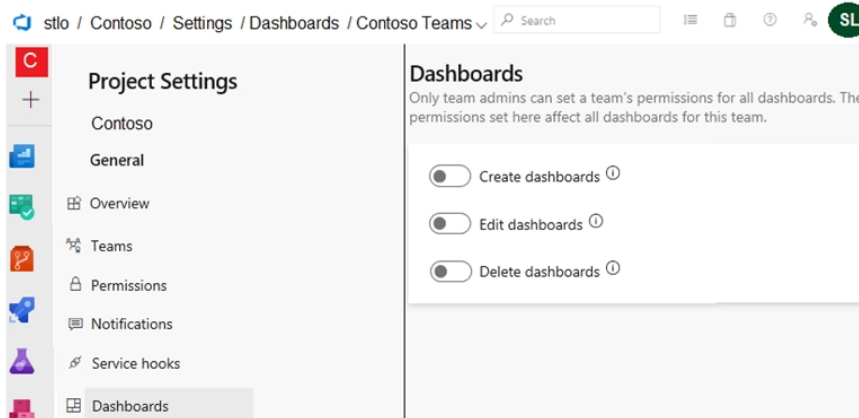
1. You have a project in Azure DevOps that has three teams as shown in the Teams exhibit. (Click the Teams tab.)



You create a new dashboard named Dash1.

You configure the dashboard permissions for the Contoso project as shown in the

Permissions exhibit. (Click the Permissions tab.)



All other permissions have the default values set.

For each of the following statements, select Yes if the statement is true.

Otherwise, select No.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Statements	Yes	No
Web Team can delete Dash1.	<input type="radio"/>	<input type="radio"/>
Contoso Team can view Dash1.	<input type="radio"/>	<input type="radio"/>
Project administrators can create new dashboards.	<input type="radio"/>	<input type="radio"/>

No, Yes, Yes

Statements	Yes	No
A platform as a service (PaaS) solution that hosts web apps in Azure provides full control of the operating systems that host applications.	<input type="radio"/>	<input type="radio"/>
A platform as a service (PaaS) solution that hosts web apps in Azure provides the ability to scale the platform automatically.	<input type="radio"/>	<input type="radio"/>
A platform as a service (PaaS) solution that hosts web apps in Azure provides professional development services to continuously add features to custom applications.		

No, Yes, Yes

Statements	Yes	No
Azure provides flexibility between capital expenditure (CapEx) and operational expenditure (OpEx).	<input type="radio"/>	<input type="radio"/>
If you create two Azure virtual machines that use the B2S size, each virtual machine will always generate the same monthly costs.	<input type="radio"/>	<input type="radio"/>
When an Azure virtual machine is stopped, you continue to pay storage costs associated to the virtual machine.		

Yes, No, Yes

SIMULATION

- You need to create an instance of Azure Application Insights named az400-9940427-main and configure the instance to receive telemetry data from an Azure web app named az400-9940427-main. To complete this task, sign in to the Microsoft Azure portal.**

Step 1: Create an instance of Azure Application Insights

- Open Microsoft Azure Portal
- Log into your Azure account, Select Create a resource > Developer tools > Application Insights.
- Enter the following settings, and then select Review + create.
Name: az400-9940427-main –

Step 2: Configure App Insights SDK

- Open your ASP.NET Core Web App project in Visual Studio > Right-click on the AppName in the Solution Explorer > Select Add > Application Insights Telemetry.
- Click the Get Started button
- Select your account and subscription > Select the Existing resource you created in the Azure portal > Click Register.

- You need to create a notification if the peak average response time of an Azure web app named az400-9940427-main is more than five seconds when evaluated during a five-minute period. The notification must trigger the “https://contoso.com/notify” webhook.**

- a. Open Microsoft Azure Portal
- b. Log into your Azure account and go to App Service and look under Monitoring then you will see Alert.
- c. Select Add an alert rule
- d. Configure the alert rule as per below and click Ok.
Source: Alert on Metrics -
Resource Group: az400-9940427-main
Resource: az400-9940427-main -
Threshold: 5 -
Period: Over the last 5 minutes -
Webhook: <https://contoso.com/notify>

3. You need to create and configure an Azure Storage account named az400lod11566895stor in a resource group named RG1lod11566895 to store the boot diagnostics for a virtual machine named VM1.

To complete this task, sign in to the Microsoft Azure portal

Step 1: To create a general-purpose v2 storage account in the Azure portal, follow these steps:

- a. On the Azure portal menu, select All services. In the list of resources, type Storage Accounts. As you begin typing, the list filters based on your input. Select Storage Accounts.
- b. On the Storage Accounts window that appears, choose Add.
- c. Select the subscription in which to create the storage account.
- d. Under the Resource group field, select RG1lod11566895
- e. Next, enter a name for your storage account named: az400lod11566895stor
- f. Select Create.

Step 2: Enable boot diagnostics on existing virtual machine, to enable Boot diagnostics on an existing virtual machine, follow these steps:

- a. Sign in to the Azure portal, and then select the virtual machine VM1.
- b. In the Support + troubleshooting section, select Boot diagnostics, then select the Settings tab.
- c. In Boot diagnostics settings, change the status to On, and from the Storage account drop-down list, select the storage account az400lod11566895stor.
- d. Save the change.
- e. You must restart the virtual machine for the change to take effect.

4. You have a web app that connects to an Azure SQL Database named db1. You need to configure db1 to send Query Store runtime statistics to Azure Log Analytics.

To complete this task, sign in to the Microsoft Azure portal. To enable streaming of diagnostic telemetry for a single or a pooled database, follow these steps:

- a. Go to Azure SQL database resource.
- b. Select Diagnostics settings.

- c. Select Turn on diagnostics if no previous settings exist, or select Edit setting to edit a previous setting. You can create up to three parallel connections to stream diagnostic telemetry.
- d. Select Add diagnostic setting to configure parallel streaming of diagnostics data to multiple resources.
- e. Enter a setting name for your own reference.
- f. Select a destination resource for the streaming diagnostics data: Archive to storage account, Stream to an event hub, or Send to Log Analytics.
- g. For the standard, event-based monitoring experience, select the following check boxes for database diagnostics log telemetry: QueryStoreRuntimeStatistics
- h. For an advanced, one-minute-based monitoring experience, select the check box for Basic metrics.
- i. Select Save.

5. You need to ensure that Microsoft Visual Studio 2017 can remotely attach to an Azure Function named fa-11566895.

To complete this task, sign in to the Microsoft Azure portal.

Enable Remote Debugging -

Before we start a debugging session to our Azure Function app we need to enable the functionality.

- a. Navigate in the Azure portal to your function app fa-11566895
- b. Go to the "Application settings"
- c. Under "Debugging" set Remote Debugging to On and set Remote Visual Studio version to 2017.

6. You need to ensure that an Azure web app named az400-9940427-main can retrieve secrets from an Azure key vault named az400-9940427-kv1 by using a system managed identity. The solution must use the principle of least privilege.

To complete this task, sign in to the Microsoft Azure portal.

- a. In Azure portal navigate to the az400-9940427-main app.
- b. Scroll down to the Settings group in the left navigation.
- c. Select Managed identity.
- d. Within the System assigned tab, switch Status to On.
- e. Click Save.

7. Your company plans to implement a new compliance strategy that will require all Azure web apps to be backed up every five hours. You need to back up an Azure web app named az400-11566895-main every five hours to an Azure Storage account in your resource group.

To complete this task, sign in to the Microsoft Azure portal. With the storage account ready, you can configure backs up in the web app or App Service.

- a. Open the App Service az400-11566895-main, which you want to protect, in the Azure Portal and browse to Settings > Backups. Click Configure and a Backup Configuration blade should appear.
- b. Select the storage account.
- c. Click + to create a private container. You could name this container after the web app or App Service.
- d. Select the container.
- e. If you want to schedule backups, then set Scheduled Backup to On and configure a schedule: every five hours
- f. Select your retention. Note that 0 means never delete backups.
- g. Decide if at least one backup should always be retained.
- h. Choose if any connected databases should be included in the web app backup.
- i. Click Save to finalize the backup configuration.

8. You need to configure a virtual machine named VM1 to securely access stored secrets in an Azure Key Vault named az400-11566895-kv.

To complete this task, sign in to the Microsoft Azure portal. You can use a system-assigned managed identity for a Windows virtual machine (VM) to access Azure Key Vault.

- a. Sign in to Azure portal
- b. Locate virtual machine VM1.
- c. Select Identity
- d. Enable the system-assigned identity for VM1 by setting the Status to On.

Note: Enabling a system-assigned managed identity is a one-click experience. You can either enable it during the creation of a VM or in the properties of an existing VM.

9. You manage a website that uses an Azure SQL Database named db1 in a resource group named RG1lod11566895. You need to modify the SQL database to protect against SQL injection.

To complete this task, sign in to the Microsoft Azure portal. Set up Advanced Threat Protection in the Azure portal

- a. Sign into the Azure portal.
- b. Navigate to the configuration page of the server you want to protect. In the security settings, select Advanced Data Security.
- c. On the Advanced Data Security configuration page:
- d. Enable Advanced Data Security on the server.

Note: Advanced Threat Protection for Azure SQL Database detects anomalous activities indicating unusual and potentially harmful attempts to access or exploit databases. Advanced Threat Protection can identify Potential SQL injection, Access from unusual location or data center, Access from unfamiliar principal or potentially harmful application, and Brute force SQL credentials

10. You need to prepare a network security group (NSG) named az400-9940427-nsg1 to host an Azure DevOps pipeline agent. The solution must allow only the required outbound port for Azure DevOps and deny all other inbound and outbound access to the Internet.

To complete this task, sign in to the Microsoft Azure portal.

- a. Open Microsoft Azure Portal and Log into your Azure account.
- b. Select network security group (NSG) named az400-9940427-nsg1
- c. Select Settings, Outbound security rules, and click Add
- d. Click Advanced
- e. Change the following settings:
 - Destination Port range: 8080
 - Protocol: TCP
 - Action: Allow

Note: By default, Azure DevOps Server uses TCP Port 8080.

11. You need to create a virtual machine template in an Azure DevTest Labs environment named az400-9940427-dtl1. The template must be based on Windows Server 2016 Datacenter. Virtual machines created from the template must include the selenium tool and the Google Chrome browser.

To complete this task, sign in to the Microsoft Azure portal.

- a. Open Microsoft Azure Portal
- b. Select All Services, and then select DevTest Labs in the DEVOPS section.
- c. From the list of labs, select the az400-9940427-dtl1 lab
- d. On the home page for your lab, select + Add on the toolbar.
- e. Select the Windows Server 2016 Datacenter base image for the VM.
- f. Select automation options at the bottom of the page above the Submit button.
- g. You see the Azure Resource Manager template for creating the virtual machine.
- h. The JSON segment in the resources section has the definition for the image type you selected earlier.

12. You need to ensure that the <https://contoso.com/statushook> webhook is called every time a repository named az40010480345acr1 receives a new version of an image named dotnetapp.

To complete this task, sign in to the Microsoft Azure portal.

- a. Sign in to the Azure portal.
- b. Navigate to the container registry az40010480345acr1. Under Services, select Webhooks.
- c. For Trigger actions select image push Example web hook

13. You plan to deploy a website that will be hosted in two Azure regions. You need to create an Azure Traffic Manager profile named az40011566895n1-tm in a resource group named RG1lod11566895.

- a. Go to the Azure portal, navigate to Traffic Manager profiles and click on the Add button to create a routing profile.
- b. In the Create Traffic Manager profile, enter, or select these settings:
 - Name: az40011566895n1-tm
 - Routing method: Geographic
 - Resource group: RG1lod11566895

Note: Traffic Manager profiles can be configured to use the Geographic routing method so that users are directed to specific endpoints (Azure, External or Nested) based on which geographic location their DNS query originates from. This empowers Traffic Manager customers to enable scenarios where knowing a user's geographic region and routing them based on that is important.

14. You have an Azure function hosted in an App Service plan named az400-9940427-func1. You need to configure az400-9940427-func1 to upgrade the functions automatically whenever new code is committed to the master branch of <https://github.com/Azure-Samples/functions-quickstart>.

To complete this task, sign in to the Microsoft Azure portal.

- a. Open Microsoft Azure Portal
- b. Log into your Azure account, select App Services in the Azure portal left navigation, and then select configure az400-9940427-func1.
- c. On the app page, select Deployment Center in the left menu.
- d. On the Build provider page, select Azure Pipelines (Preview), and then select Continue.
- e. On the Configure page, in the Code section:
- f. For GitHub, drop down and select the Organization, Repository, and Branch you want to deploy continuously.
- g. Select Continue.
- h. On the Test page, choose whether to enable load tests, and then select Continue.
- i. Depending on your App Service plan pricing tier, you may see a Deploy to staging page. Choose whether to enable deployment slots, and then select Continue.
- j. After you configure the build provider, review the settings on the Summary page, and then select Finish.

15. You need to create a notification if the peak average response time of an Azure web app named az400-9940427-main is more than five seconds when evaluated during a five-minute period. The notification must trigger the “<https://contoso.com/notify>” webhook.

To complete this task, sign in to the Microsoft Azure portal.

- a. Open Microsoft Azure Portal

- b. Log into your Azure account and go to App Service and look under Monitoring then you will see Alert.
- c. Select Add an alert rule
- d. Configure the alert rule as per below and click Ok.
 - Source: Alert on Metrics Resource
 - Group: az400-9940427-main

16. You plan to deploy a template named D:\Deploy.json to a resource group named Deploy-lod9940427. You need to modify the template to meet the following requirements, and then to deploy the template:

- **The address space must be reduced to support only 256 total IP addresses.**
- **The subnet address space must be reduced to support only 64 total IP addresses.**

To complete this task, sign in to the Microsoft Azure portal.

- a. Sign in to the portal,
- b. Choose template Deploy-lod9940427
- c. Select Edit template, and then paste your JSON template code into the code window.
- d. Change the AddressPrefixes to 10.0.0.0/24 in order to support only 256 total IP addresses. `addressSpace":{"addressPrefixes": ["10.0.0.0/24"]}`,
- e. Change the firstSubnet addressprefix to 10.0.0.0/26 to support only 64 total IP addresses. `"subnets":[`

```
{  
  "name": "firstSubnet",  
  "properties": { "addressPrefix": "10.0.0.0/24"  
}
```

- f. Select Save.
- g. Select Edit parameters, provide values for the parameters that are shown, and then select OK.
- h. Select Subscription. Choose the subscription you want to use, and then select OK.
- i. Select Resource group. Choose an existing resource group or create a new one, and then select OK.
- j. Select Create. A new tile on the dashboard tracks the progress of your template deployment.

17. You manage a website that uses an Azure SQL Database named db1 in a resource group named RG1lod11566895. You need to modify the SQL database to protect against SQL injection.

To complete this task, sign in to the Microsoft Azure portal. Set up Advanced Threat Protection in the Azure portal:

- a. Sign into the Azure portal.

- b. Navigate to the configuration page of the server you want to protect. In the security settings, select Advanced Data Security.
- c. On the Advanced Data Security configuration page
- d. Enable Advanced Data Security on the server.

Note: Advanced Threat Protection for Azure SQL Database detects anomalous activities indicating unusual and potentially harmful attempts to access or exploit databases. Advanced Threat Protection can identify Potential SQL injection, Access from unusual location or data center, Access from unfamiliar principal or potentially harmful application, and Brute force SQL credentials

18. You need to configure a virtual machine named VM1 to securely access stored secrets in an Azure Key Vault named az400-11566895-kv.

To complete this task, sign in to the Microsoft Azure portal. You can use a system-assigned managed identity for a Windows virtual machine (VM) to access Azure Key Vault.

- a. Sign in to Azure portal Locate virtual machine VM1. Select Identity
- b. Enable the system-assigned identity for VM1 by setting the Status to On.

Note: Enabling a system-assigned managed identity is a one-click experience. You can either enable it during the creation of a VM or in the properties of an existing VM.

19. You plan to deploy a runbook that will create Azure AD user accounts. You need to ensure that runbooks can run the Azure PowerShell cmdlets for Azure Active Directory.

To complete this task, sign in to the Microsoft Azure portal. Azure Automation now ships with the Azure PowerShell module of version 0.8.6, which introduced the ability to non-interactively authenticate to Azure using OrgId (Azure Active Directory user) credential-based authentication. Using the steps below, you can set up Azure Automation to talk to Azure using this authentication type.

Step 1: Find the Azure Active Directory associated with the Azure subscription to manage:

- a. Log in to the Azure portal as the service administrator for the Azure subscription you want to manage using Azure Automation. You can find this user by logging in to the Azure portal as any user with access to this Azure subscription, then clicking Settings, then Administrators.
- b. Note the name of the directory associated with the Azure subscription you want to manage. You can find this directory by clicking Settings, then Subscriptions.

Step 2: Create an Azure Active Directory user in the directory associated with the Azure subscription to manage:

You can skip this step if you already have an Azure Active Directory user in this directory. and plan to use this OrgId to manage Azure.

- a. In the Azure portal click on Active Directory service.
- b. Click the directory name that is associated with this Azure subscription.
- c. Click on the Users tab and then click the Add User button.
- d. For type of user, select “New user in your organization.” Enter a username for the user to create.
- e. Fill out the user’s profile. For role, pick “User.” Don’t enable multi-factor authentication. Multi-factor accounts cannot be used with Azure Automation.
- f. Click Create.
- g. Jot down the full username (including part after @ symbol) and temporary password.

Step 3: Allow this Azure Active Directory user to manage this Azure subscription.

- a. Click on Settings (bottom Azure tab under StorSimple)
- b. Click Administrators
- c. Click the Add button. Type the full user name (including part after @ symbol) of the Azure Active Directory user you want to set up to manage Azure. For subscriptions, choose the Azure subscriptions you want this user to be able to manage. Click the check mark.

Step 4: Configure Azure Automation to use this Azure Active Directory user to manage this Azure subscription

- a. Create an Azure Automation credential asset containing the username and password of the Azure Active Directory user that you have just created. You can create a credential asset in Azure Automation by clicking into an Automation Account and then clicking the Assets tab, then the Add Setting button.

Note: Once you have set up the Azure Active Directory credential in Azure and Azure Automation, you can now manage Azure from Azure Automation runbooks using this credential.

20. You have several apps that use an Azure SQL Database named db1. You need to ensure that queries to db1 are tuned by Azure over time. The solution must only apply to db1.

To complete this task, sign in to the Microsoft Azure portal.

- a. To enable automatic tuning on a single database, navigate to the database in the Azure portal and select Automatic tuning.
- b. Select the automatic tuning options you want to enable and select Apply.

Note: Individual automatic tuning settings can be separately configured for each database. You can manually configure an individual automatic tuning option, or specify that an option inherits its settings from the server.

21. You need to configure an Azure web app named az400-9940427-main to contain an environmental variable named "MAX_ITEMS". The environmental variable must have a value of 50.

To complete this task, sign in to the Microsoft Azure portal.

- a. In the Azure portal, navigate to the az400-9940427-main app's management page. In the app's left menu, click Configuration > Application settings.
- b. Click New Application settings
- c. Enter the following:

Name: MAX_ITEMS

Value: 50

22. You plan to implement a CI/CD strategy for an Azure Web App named az400-11566895-main. You need to configure a staging environment for az400-11566895-main.

To complete this task, sign in to the Microsoft Azure portal.

Add a slot

- a. In the Azure portal, search for and select App Services and select your app az400-11566895-main.
- b. In the left pane, select Deployment slots > Add Slot.
- c. In the Add a slot dialog box, give the slot a name, and select whether to clone an app configuration from another deployment slot. Select Add to continue.
- d. After the slot is added, select Close to close the dialog box. The new slot is now shown on the Deployment slots page.

23. You need to create and configure an Azure Storage account named az400lod11566895stor in a resource group named RG1lod11566895 to store the boot diagnostics for a virtual machine named VM1.

To complete this task, sign in to the Microsoft Azure portal.

Step 1: To create a general-purpose v2 storage account in the Azure portal, follow these steps:

- a. On the Azure portal menu, select All services. In the list of resources, type Storage Accounts. As you begin typing, the list filters based on your input. Select Storage Accounts.
- b. On the Storage Accounts window that appears, choose Add. Select the subscription in which to create the storage account. Under the Resource group field, select RG1lod11566895
- c. Next, enter a name for your storage account named: az400lod11566895stor Select Create.

Step 2: Enable boot diagnostics on existing virtual machine

To enable Boot diagnostics on an existing virtual machine, follow these steps:

- a. Sign in to the Azure portal, and then select the virtual machine VM1.

- b. In the Support + troubleshooting section, select Boot diagnostics, then select the Settings tab.
- c. In Boot diagnostics settings, change the status to On, and from the Storage account drop-down list, select the storage account az400lod11566895stor.
- d. Save the change.
- e. You must restart the virtual machine for the change to take effect.

24. You need to create a virtual machine template in an Azure DevTest Labs environment named az400-9940427-dtl1. The template must be based on Windows Server 2016 Datacenter. Virtual machines created from the template must include the selenium tool and the Google Chrome browser.

To complete this task, sign in to the Microsoft Azure portal.

- a. Open Microsoft Azure Portal
- b. Select All Services, and then select DevTest Labs in the DEVOPS section.
- c. From the list of labs, select the az400-9940427-dtl1 lab
- d. On the home page for your lab, select + Add on the toolbar.
- e. Select the Windows Server 2016 Datacenter base image for the VM.
- f. Select automation options at the bottom of the page above the Submit button.
- g. You see the Azure Resource Manager template for creating the virtual machine.
- h. The JSON segment in the resources section has the definition for the image type you selected earlier.

25. You need to ensure that an Azure web app named az400-9940427-main supports rolling upgrades. The solution must ensure that only 10 percent of users who connect to az400-9940427-main use update versions of the app. The solution must minimize administrative effort.

To complete this task, sign in to the Microsoft Azure portal. Set up staging environments in Azure App Service

- a. Open Microsoft Azure Portal
- b. Log into your Azure account, select your app's resource page, in the left pane, select Deployment slots > Add Slot.
- c. In the Add a slot dialog box, give the slot a name, and select whether to clone an app configuration from another deployment slot. Select Add to continue.
- d. After the slot is added, select Close to close the dialog box. The new slot is now shown on the Deployment slots page. By default, Traffic % is set to 0 for the new slot, with all customer traffic routed to the production slot.
- e. Select the new deployment slot to open that slot's resource page.
- f. Change TRAFFIC % to 10

26. You need to ensure that Microsoft Visual Studio 2017 can remotely attach to an Azure Function named fa-11566895. To complete this task, sign in to the Microsoft Azure portal.

Enable Remote Debugging -

Before we start a debugging session to our Azure Function app we need to enable the functionality.

- a. Navigate in the Azure portal to your function app fa-11566895
- b. Go to the "Application settings"
- c. Under "Debugging" set Remote Debugging to On and set Remote Visual Studio version to 2017.

27. You have several apps that use an Azure SQL Database named db1. You need to ensure that queries to db1 are tuned by Azure over time. The solution must only apply to db1. To complete this task, sign in to the Microsoft Azure portal.

- a. To enable automatic tuning on a single database, navigate to the database in the Azure portal and select Automatic tuning.
- b. Select the automatic tuning options you want to enable and select Apply.

Note: Individual automatic tuning settings can be separately configured for each database. You can manually configure an individual automatic tuning option, or specify that an option inherits its settings from the server.

28. You need to create an instance of Azure Application Insights named az400-9940427-main and configure the instance to receive telemetry data from an Azure web app named az400-9940427-main.

To complete this task, sign in to the Microsoft Azure portal.

Step 1: Create an instance of Azure Application Insights

- a. Open Microsoft Azure Portal
- b. Log into your Azure account, Select Create a resource > Developer tools > Application Insights.
- c. Enter the following settings, and then select Review + create. Name: az400-9940427-main

Step 2: Configure App Insights SDK

- a. Open your ASP.NET Core Web App project in Visual Studio > Right-click on the AppName in the Solution Explorer > Select Add > Application Insights Telemetry.
- b. Click the Get Started button
- c. Select your account and subscription > Select the Existing resource you created in the Azure portal > Click Register.