

Microsoft AZ-400 Exam Practice Questions - Updated July 2026

QUESTION 1

You need to run pipeline jobs on a machine that has your company's custom build tools and code-signing certificate installed. Which agent type should you use?

- A. Microsoft-hosted agent
- B. GitHub-hosted runner
- C. Self-hosted agent [Correct]**
- D. Azure VMSS agent pool

Correct Answer: C

Explanation

A self-hosted agent runs on your own machine and can access custom tools and certificates. Microsoft-hosted agents are ephemeral and managed by Microsoft, VMSS pools autoscale self-hosted agents, and GitHub-hosted runners are for GitHub Actions.

QUESTION 2

Which Azure Pipelines feature automatically scales self-hosted agents up and down based on pipeline queue length?

- A. Environment virtual machines
- B. Deployment groups
- C. Azure Virtual Machine Scale Set agent pools [Correct]**
- D. Microsoft-hosted parallel jobs

Correct Answer: C

Explanation

Azure VMSS agent pools autoscale self-hosted agents based on pending jobs. Microsoft-hosted parallel jobs are Microsoft-managed, deployment groups target deployment machines, and environments are logical deployment targets.

QUESTION 3

Your team needs to run more concurrent CI builds than the default allowance in Azure Pipelines. What should you purchase?

- A. Additional self-hosted agents only
- B. Additional artifact feeds
- C. Additional service connections
- D. Additional Microsoft-hosted parallel jobs [Correct]**

Correct Answer: D

Explanation

Parallel jobs control concurrency in Azure Pipelines; you purchase additional Microsoft-hosted or self-hosted parallel jobs. Artifact feeds, self-hosted agents alone, and service connections do not raise pipeline concurrency limits.

QUESTION 4

In a YAML pipeline, what is the relationship between stages, jobs, and steps?

- A. They are independent and interchangeable
- B. Stages contain jobs, which contain steps [Correct]**
- C. Jobs contain stages, which contain steps
- D. Steps contain jobs, which contain stages

Correct Answer: B

Explanation

A pipeline has stages, each stage has jobs, and each job has steps. Stages organize major phases, jobs run on agents, and steps are individual tasks.

QUESTION 5

You want to reuse a set of pipeline steps across multiple YAML pipelines while keeping a single source of truth. Which feature should you use?

- A. Variable groups
- B. Runtime parameters
- C. Service connections

D. Pipeline templates [Correct]

Correct Answer: D

Explanation

Templates let you define reusable steps, jobs, or stages that can be included in multiple pipelines. Variable groups share variables, service connections store credentials, and runtime parameters pass values at queue time.

QUESTION 6

You need to share database connection strings across multiple pipelines and update them in one place. Which feature should you use?

- A. Runtime parameters
- B. Inline variables
- C. Template parameters

D. Variable groups [Correct]

Correct Answer: D

Explanation

Variable groups store shared variables that multiple pipelines can reference and update in one place. Inline variables are pipeline-specific, runtime parameters are queue-time inputs, and template parameters are evaluated at compile time.

QUESTION 7

How should you store a service principal password used by a YAML pipeline so it is not visible in plain text?

- A. Print it as a pipeline variable
- B. Store it in a variable group as a secret variable [Correct]**
- C. Hard-code it in the YAML file
- D. Store it in a comment in the repo

Correct Answer: B

Explanation

Secret variables in variable groups (or pipeline secrets) are encrypted and masked in logs. Hard-coding or commenting credentials exposes them, and printing a secret is insecure.

QUESTION 8

You need to ask users to choose a deployment environment (Dev, Test, Prod) when they manually run a pipeline. Which YAML feature should you use?

- A. variables
- B. parameters [Correct]**
- C. dependsOn
- D. conditions

Correct Answer: B

Explanation

Runtime parameters let users select values at queue time, such as an environment dropdown. variables store values, conditions control execution, and dependsOn defines ordering.

QUESTION 9

Which condition runs a step only when a previous step failed?

- A. succeeded()
- B. always()
- C. canceled()
- D. failed() [Correct]**

Correct Answer: D

Explanation

failed() returns true when a previous dependency or step failed. always() runs regardless of status, succeeded() runs only when prior steps succeed, and canceled() checks for cancellation.

QUESTION 10

You have two stages, Build and Deploy, and Deploy must wait for Build to complete. Which YAML keyword defines this?

- A. pool
- B. dependsOn [Correct]**
- C. strategy
- D. condition

Correct Answer: B

Explanation

dependsOn makes one stage (or job) wait for another to finish. condition controls whether something runs, pool selects the agent, and strategy controls deployment pattern.

QUESTION 11

Which Azure Pipelines object provides a logical deployment target with a deployment history and approval checks?

- A. Variable group
- B. Service connection
- C. Agent pool
- D. Environment [Correct]**

Correct Answer: D

Explanation

Environments represent deployment targets (such as Dev or Prod) and track deployments and approvals. Agent pools run jobs, variable groups hold variables, and service connections store credentials.

QUESTION 12

Which deployment strategy gradually shifts traffic from the old version to the new version in small increments?

- A. Rolling
- B. runOnce
- C. Canary [Correct]**
- D. Blue-green

Correct Answer: C

Explanation

Canary deploys the new version to a small subset of users first and gradually increases traffic. runOnce deploys once, rolling updates instances in batches, and blue-green switches traffic all at once between two environments.

QUESTION 13

Which deployment strategy maintains two identical environments and switches all traffic at once from the old to the new version?

- A. Canary
- B. runOnce
- C. Blue-green [Correct]
- D. Rolling

Correct Answer: C

Explanation

Blue-green keeps two identical environments (blue and green) and switches all traffic at once, enabling instant rollback. Canary shifts incrementally, rolling updates in batches, and runOnce deploys once without strategy.

QUESTION 14

You want to require a release manager to approve deployments to the Production environment before they start. Where should you configure this in Azure Pipelines?

- A. Approval on the Production environment [Correct]
- B. Branch policy on the repo
- C. Service connection approval
- D. Agent pool approval

Correct Answer: A

Explanation

Approvals are configured on environments to gate deployments before they start. Branch policies control repo merges, and service connections and agent pools do not gate deployments by user approval.

QUESTION 15

Which Azure Pipelines feature lets you require an Azure Monitor alert to be healthy before a service connection can be used in a deployment?

A. Checks [Correct]

- B. Approvals
- C. Gates in classic release
- D. Branch policies

Correct Answer: A

Explanation

Checks (such as invoking an Azure Monitor alert query) gate the use of a service connection or environment. Approvals require a person, branch policies govern repos, and gates are part of classic releases, not YAML environments.

QUESTION 16

Which Azure Pipelines service connection type should you create to deploy resources to an Azure subscription using a service principal?

- A. Generic
- B. Azure Resource Manager [Correct]**
- C. GitHub
- D. Service Bus

Correct Answer: B

Explanation

An Azure Resource Manager (ARM) service connection authenticates a pipeline to an Azure subscription via service principal or managed identity. GitHub connects to GitHub repos, Generic is for arbitrary REST endpoints, and Service Bus is for messaging.

QUESTION 17

You want testers to execute a set of test cases against a specific build and record pass/fail results. Which Azure Test Plans object should you create?

- A. Test case
- B. Test plan
- C. Test suite
- D. Test run [Correct]**

Correct Answer: D

Explanation

A test run records the execution of test cases against a build, capturing pass/fail outcomes. A test plan groups suites, test suites organize test cases, and test cases are the individual tests.

QUESTION 18

You want to measure how much of your code is exercised by automated tests during a pipeline run. Which metric should you collect?

- A. Lead time
- B. Deployment frequency
- C. Code coverage [Correct]**
- D. Pull request rate

Correct Answer: C

Explanation

Code coverage measures the percentage of code exercised by tests. Deployment frequency and lead time are DORA delivery metrics, and pull request rate is not a coverage metric.

QUESTION 19

Your team builds Python packages and wants to publish them to a private feed within Azure DevOps. Which Azure Artifacts feed type should you use?

A. Maven Central feed

B. Python (PyPI) feed in Azure Artifacts [Correct]

C. Public npm feed

D. NuGet gallery feed

Correct Answer: B

Explanation

Azure Artifacts supports Python (PyPI) feeds for hosting private Python packages. npm feeds are for Node, NuGet for .NET, and Maven Central is a public feed for Java.

QUESTION 20

You want a single Azure Artifacts feed to serve packages from both your internal NuGet packages and the public nuget.org. Which feature enables this?

A. Service connections

B. Upstream sources [Correct]

C. Branch policies

D. Variable groups

Correct Answer: B

Explanation

Upstream sources let a feed proxy and cache packages from public registries like nuget.org alongside your internal packages. Service connections store credentials, variable groups share values, and branch policies govern repos.

QUESTION 21

You need to share a 5 GB binary build artifact with another team in Azure DevOps. Which Azure Artifacts feature supports large binary packages up to multiple TB?

- A. npm packages
- B. NuGet packages
- C. Maven packages
- D. Universal packages [Correct]**

Correct Answer: D

Explanation

Universal Packages can store large binaries up to multiple TB and are not tied to a specific language ecosystem. NuGet, npm, and Maven packages are language-specific and have practical size limits.

QUESTION 22

In GitHub Actions, what defines an automated workflow as YAML in the .github/workflows directory?

- A. Workflow file [Correct]**
- B. Action
- C. Runner
- D. Marketplace listing

Correct Answer: A

Explanation

A workflow file in .github/workflows defines the automation as YAML. Actions are reusable units, runners execute jobs, and the marketplace distributes actions.

QUESTION 23

Which GitHub Actions runner type runs inside your own virtual network and can access corporate resources?

- A. GitHub-hosted Linux runner
- B. Marketplace runner
- C. Self-hosted runner [Correct]**
- D. GitHub-hosted Windows runner

Correct Answer: C

Explanation

Self-hosted runners run on your infrastructure and can access internal resources. GitHub-hosted runners are managed by GitHub and run in their cloud, and there is no marketplace runner category.

QUESTION 24

Which GitHub Advanced Security feature scans repositories for secrets like connection strings and tokens?

- A. Code scanning
- B. CodeQL
- C. Dependabot
- D. Secret scanning [Correct]**

Correct Answer: D

Explanation

Secret scanning detects credentials such as connection strings and tokens committed to repositories. Code scanning (often via CodeQL) analyzes code for vulnerabilities, and Dependabot handles dependency updates.

QUESTION 25

Which feature automatically opens pull requests to update outdated or vulnerable dependencies?

A. Dependabot security and version updates [Correct]

- B. Branch policies
- C. Code scanning
- D. Secret scanning

Correct Answer: A

Explanation

Dependabot opens PRs to bump dependencies for security advisories and version updates. Secret scanning detects committed secrets, code scanning analyzes source, and branch policies are an Azure Repos feature.

QUESTION 26

Which Infrastructure as Code language is a declarative DSL authored by Microsoft and transpiles to ARM templates?

- A. Chef
- B. Terraform
- C. Ansible

D. Bicep [Correct]

Correct Answer: D

Explanation

Bicep is a Microsoft declarative DSL that compiles to ARM templates and uses native Azure types. Terraform is HashiCorp's multi-cloud tool, Ansible is imperative config-management, and Chef uses Ruby-based recipes.

QUESTION 27

Which Infrastructure as Code tool uses HCL and stores state about managed resources, requiring a remote backend for team collaboration?

A. Terraform [Correct]

- B. Bicep
- C. Ansible
- D. ARM templates

Correct Answer: A

Explanation

Terraform uses HCL and maintains state files; teams use remote backends (such as Azure Storage) to share state safely. ARM templates and Bicep are stateless Azure-native, and Ansible does not track state.

QUESTION 28

Which pair are imperative configuration-management tools that apply desired state to existing VMs?

- A. Terraform and Pulumi
- B. Ansible and Chef [Correct]**
- C. ARM templates and Bicep
- D. Azure Policy and Blueprints

Correct Answer: B

Explanation

Ansible and Chef are configuration-management tools that apply state to existing machines. ARM/Bicep/Terraform/Pulumi are declarative IaC for provisioning, and Azure Policy/Blueprints enforce governance.

QUESTION 29

You want to capture request rates, response times, and failure rates for a web application. Which Azure service should you instrument?

- A. Azure Sentinel
- B. Azure Advisor

C. Application Insights [Correct]

- D. Azure Log Analytics

Correct Answer: C

Explanation

Application Insights collects request rates, response times, and failure rates for web apps. Log Analytics stores log queries, Advisor gives recommendations, and Sentinel is SIEM.

QUESTION 30

Which release strategy lets you deploy new code to production but hide the feature from users until you toggle it on?

- A. Canary release
- B. Rolling deployment
- C. Blue-green deployment

D. Feature flags (dark launch) [Correct]

Correct Answer: D

Explanation

Feature flags (dark launches) deploy code to production but gate visibility with a toggle. Blue-green swaps environments, canary shifts traffic incrementally, and rolling updates instances in batches.

QUESTION 31

You need a pipeline to authenticate to Azure Key Vault without storing any secret in Azure DevOps. Which authentication mechanism should the ARM service connection use?

- A. A personal access token (PAT)
- B. A hard-coded password
- C. Workload identity federation with no stored secret [Correct]**
- D. A service principal with a client secret stored as a pipeline variable

Correct Answer: C

Explanation

Workload identity federation lets the service connection use OIDC token exchange with no stored secret. A client secret is stored, PATs are for Azure DevOps REST API, and hard-coded passwords are insecure.

QUESTION 32

You need to fetch a database password from Azure Key Vault during a pipeline run. Which Azure Pipelines task should you use?

- A. PublishPipelineArtifact@1
- B. AzureCLI@2
- C. AzureKeyVault@1 [Correct]**
- D. CopyFiles@2

Correct Answer: C

Explanation

AzureKeyVault@1 fetches secrets from Key Vault and maps them into pipeline variables. AzureCLI runs CLI commands, CopyFiles copies files, and PublishPipelineArtifact uploads artifacts.

QUESTION 33

Which pair of third-party services scan open-source dependencies for known vulnerabilities and license issues?

- A. Git and TFVC
- B. Azure Monitor and Log Analytics
- C. Sonatype Nexus Lifecycle and Snyk [Correct]**
- D. Application Insights and Advisor

Correct Answer: C

Explanation

Sonatype Nexus Lifecycle and Snyk scan dependencies for vulnerabilities and license risk. Azure Monitor/Log Analytics/App Insights are observability tools, and Git/TFVC are version control.

QUESTION 34

An application has an SLA of 99.9% availability. Approximately what is the resulting monthly error budget?

- A. About 43 minutes [Correct]**
- B. About 8 hours
- C. About 4 hours and 18 minutes
- D. About 4 minutes

Correct Answer: A

Explanation

A 99.9% SLA permits 0.1% downtime, which is about 43 minutes per 30-day month. 4 minutes corresponds to 99.99%, 4 hours and 18 minutes roughly matches 99.4%, and 8 hours corresponds to about 98.9%.

QUESTION 35

You want Azure Kubernetes Service to pull images from Azure Container Registry without storing credentials as Kubernetes image pull secrets. What should you configure?

- A. ACR admin user
- B. A managed identity on AKS with AcrPull role assignment [Correct]**
- C. Anonymous pull access on ACR
- D. A Kubernetes secret with the ACR password

Correct Answer: B

Explanation

A managed identity on AKS granted AcrPull on ACR lets clusters pull images without stored credentials. Anonymous access is insecure, admin user is discouraged, and image pull secrets store credentials.

QUESTION 36

Which Kubernetes package manager lets you define, version, and templatize application manifests as a chart?

- A. Helm [Correct]**
- B. kubectl
- C. Draft
- D. Kompose

Correct Answer: A

Explanation

Helm packages Kubernetes manifests as versioned charts with templated values. kubectl is the CLI for cluster operations, Kompose converts Docker Compose, and Draft is a deprecated scaffolding tool.

QUESTION 37

You deploy an Azure Functions app and want to validate a new version in production with a small percentage of traffic before full release. Which feature should you use?

- A. Consumption plan scaling
- B. Proxies
- C. Application settings only
- D. Deployment slots with traffic shifting [Correct]**

Correct Answer: D

Explanation

Deployment slots (such as a staging slot) let you validate and gradually shift production traffic to a new version. App settings configure the runtime, consumption scaling controls compute, and Proxies route requests.

QUESTION 38

Which Azure DevOps feature captures user feedback through a browser extension and creates work items directly from the feedback?

- A. Request Feedback (Feedback Client) [Correct]**
- B. Service hooks
- C. Power BI integration
- D. Test Runner

Correct Answer: A

Explanation

The Request Feedback feature and Feedback Client let stakeholders submit feedback that creates work items. Test Runner executes tests, Power BI is for reporting, and service hooks push events to external systems.



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