

Study Guide

Exam AZ-900: Microsoft Azure Fundamentals

Skills Measure / Functional groups

1. Describe cloud concepts (25—30%)
 - 1.1. Describe cloud computing
 - 1.1.1. Define cloud computing
 - 1.1.2. Describe the shared responsibility model
 - 1.1.3. Define cloud models, including public, private, and hybrid
 - 1.1.4. Identify appropriate use cases for each cloud model
 - 1.1.5. Describe the consumption-based model
 - 1.1.6. Compare cloud pricing models
 - 1.2. Describe the benefits of using cloud services
 - 1.2.1. Describe the benefits of high availability and scalability in the cloud
 - 1.2.2. Describe the benefits of reliability and predictability in the cloud
 - 1.2.3. Describe the benefits of security and governance in the cloud
 - 1.2.4. Describe the benefits of manageability in the cloud
 - 1.3. Describe cloud service types
 - 1.3.1. Describe infrastructure as a service (IaaS)
 - 1.3.2. Describe platform as a service (PaaS)
 - 1.3.3. Describe software as a service (SaaS)
 - 1.3.4. Identify appropriate use cases for each cloud service (IaaS, PaaS, SaaS)
2. Describe Azure architecture and services (35—40%)
 - 2.1. Describe the core architectural components of Azure
 - 2.1.1. Describe Azure regions, region pairs, and sovereign regions - [\[as per updated syllabus on 28th Oct 2022\]](#)
 - 2.1.2. Describe availability zones
 - 2.1.3. Describe Azure datacenters
 - 2.1.4. Describe Azure resources and resource groups

- 2.1.5. Describe subscriptions
- 2.1.6. Describe management groups
- 2.1.7. Describe the hierarchy of resource groups, subscriptions, and management groups
- 2.2. Describe Azure compute and networking services
 - 2.2.1. Compare compute types, including container instances, virtual machines (VMs), and functions
 - 2.2.2. Describe VM options, including Azure Virtual Machines, Azure Virtual Machine Scale Sets, availability sets, and Azure Virtual Desktop
 - 2.2.3. Describe resources required for virtual machines
 - 2.2.4. Describe application hosting options, including the Web Apps feature of Azure App Service, containers, and virtual machines
 - 2.2.5. Describe virtual networking, including the purpose of Azure Virtual Networks, Azure virtual subnets, peering, Azure DNS, Azure VPN Gateway, and Azure ExpressRoute
 - 2.2.6. Define public and private endpoints
- 2.3. Describe Azure storage services
 - 2.3.1. Compare Azure storage services
 - 2.3.2. Describe storage tiers
 - 2.3.3. Describe redundancy options
 - 2.3.4. Describe storage account options and storage types
 - 2.3.5. Identify options for moving files, including AzCopy, Azure Storage Explorer, and Azure File Sync
 - 2.3.6. Describe migration options, including Azure Migrate and Azure Data Box
- 2.4. Describe Azure identity, access, and security
 - 2.4.1. Describe directory services in Azure, including Microsoft Azure Active Directory (Azure AD), part of Microsoft Entra and Azure Active Directory Domain Services (Azure AD DS) - *[as per updated syllabus on 28th Oct 2022]*
 - 2.4.2. Describe authentication methods in Azure, including single sign-on (SSO), multifactor authentication, and passwordless
 - 2.4.3. Describe external identities and guest access in Azure
 - 2.4.4. Describe Conditional Access in Microsoft Azure Active Directory (Azure AD), part of Microsoft Entra - *[as per updated syllabus on 28th Oct 2022]*
 - 2.4.5. Describe Azure role-based access control (RBAC)
 - 2.4.6. Describe the concept of Zero Trust
 - 2.4.7. Describe the purpose of the defense in depth model
 - 2.4.8. Describe the purpose of Microsoft Defender for Cloud

3. Describe Azure management and governance (30—35%)

3.1. Describe cost management in Azure

- 3.1.1. Describe factors that can affect costs in Azure
- 3.1.2. Compare the Pricing calculator and the Total Cost of Ownership (TCO) calculator
- 3.1.3. Describe the Azure Cost Management and Billing tool
- 3.1.4. Describe the purpose of tags

3.2. Describe features and tools in Azure for governance and compliance

- 3.2.1. Describe the purpose of Azure Blueprints
- 3.2.2. Describe the purpose of Azure Policy
- 3.2.3. Describe the purpose of resource locks
- 3.2.4. Describe the purpose of the Service Trust Portal

3.3. Describe features and tools for managing and deploying Azure resources

- 3.3.1. Describe the Azure portal
- 3.3.2. Describe Azure Cloud Shell, including Azure CLI and Azure PowerShell
- 3.3.3. Describe the purpose of Azure Arc
- 3.3.4. Describe Azure Resource Manager and Azure Resource Manager templates (ARM templates)

3.4. Describe monitoring tools in Azure

- 3.4.1. Describe the purpose of Azure Advisor
- 3.4.2. Describe Azure Service Health
- 3.4.3. Describe Azure Monitor, including Log Analytics, Azure Monitor alerts, and Application Insights