AZ 900 – Microsoft Azure Fundamental Certificate Course

Describe cloud concepts (25–30%)

Describe cloud computing

- Define cloud computing
- Describe the shared responsibility model
- Define cloud models, including public, private, and hybrid
- Identify appropriate use cases for each cloud model
- Describe the consumption-based model
- Compare cloud pricing models

Describe the benefits of using cloud services

- Describe the benefits of high availability and scalability in the cloud
- Describe the benefits of reliability and predictability in the cloud
- Describe the benefits of security and governance in the cloud
- Describe the benefits of manageability in the cloud

Describe cloud service types

- Describe infrastructure as a service (IaaS)
- Describe platform as a service (PaaS)
- Describe software as a service (SaaS)
- Identify appropriate use cases for each cloud service (IaaS, PaaS, SaaS)

Describe Azure architecture and services (35–40%)

Describe the core architectural components of Azure

- Describe Azure regions, region pairs, and sovereign regions
- Describe availability zones
- Describe Azure datacenters
- Describe Azure resources and resource groups
- Describe subscriptions
- Describe management groups
- Describe the hierarchy of resource groups, subscriptions, and management groups

Describe Azure compute and networking services

- Compare compute types, including container instances, virtual machines (VMs), and functions
- Describe VM options, including Azure Virtual Machines, Azure Virtual Machine Scale Sets, availability sets, and Azure Virtual Desktop
- Describe resources required for virtual machines
- Describe application hosting options, including the Web Apps feature of Azure App Service, containers, and virtual machines

- Describe virtual networking, including the purpose of Azure Virtual Networks, Azure virtual subnets, peering, Azure DNS, Azure VPN Gateway, and Azure ExpressRoute
- Define public and private endpoints

Describe Azure storage services

- Compare Azure storage services
- Describe storage tiers
- Describe redundancy options
- Describe storage account options and storage types
- Identify options for moving files, including AzCopy, Azure Storage Explorer, and Azure File Sync
- Describe migration options, including Azure Migrate and Azure Data Box

Describe Azure identity, access, and security

- 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)
- Describe authentication methods in Azure, including single sign-on (SSO), multifactor authentication, and passwordless
- Describe external identities and guest access in Azure
- Describe Conditional Access in Microsoft Azure Active Directory (Azure AD), part of Microsoft Entra
- Describe Azure role-based access control (RBAC)
- Describe the concept of Zero Trust
- Describe the purpose of the defense in depth model
- Describe the purpose of Microsoft Defender for Cloud

Describe Azure management and governance (30–35%)

Describe cost management in Azure

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

Describe features and tools in Azure for governance and compliance

- Describe the purpose of Azure Blueprints
- Describe the purpose of Azure Policy
- Describe the purpose of resource locks
- Describe the purpose of the Service Trust Portal

Describe features and tools for managing and deploying Azure resources

- Describe the Azure portal
- Describe Azure Cloud Shell, including Azure CLI and Azure PowerShell

- Describe the purpose of Azure Arc
- Describe Azure Resource Manager and Azure Resource Manager templates (ARM templates)

Describe monitoring tools in Azure

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