

PAGE 1: INTRODUCTION TO CLOUD & AZURE

What is Cloud Computing?

Cloud computing is the delivery of computing services such as servers, storage, databases, networking, software, and analytics over the internet. It allows users to access resources anytime without owning physical hardware.

Benefits of Cloud Computing

- Cost-effective (pay only for what you use)
- Scalable and flexible
- High availability and reliability
- Secure and fast deployment

What is Microsoft Azure?

Microsoft Azure is a cloud computing platform provided by Microsoft. It offers services for computing, storage, networking, databases, AI, and security to build and manage applications globally.

Cloud Deployment Models

- Public Cloud – Services shared over the internet (Azure)
- Private Cloud – Dedicated for one organization
- Hybrid Cloud – Combination of public and private clouds

PAGE 2: AZURE CORE SERVICES

Compute Services

- Azure Virtual Machines – Run applications on virtual servers
- Azure App Service – Host web apps and APIs
- Azure Functions – Serverless computing for event-driven tasks

Storage Services

- Blob Storage – Store unstructured data like images and videos
- File Storage – Cloud file sharing
- Disk Storage – Storage for virtual machines

Networking Services

- Virtual Network (VNet) – Private network in Azure
- Load Balancer – Distributes traffic across servers
- VPN Gateway – Secure connection to Azure resources

Database Services

- Azure SQL Database
- Azure Cosmos DB
- Azure Database for MySQL and PostgreSQL

PAGE 3: SECURITY, PRICING & GOVERNANCE

Security in Azure

- Microsoft Defender for Cloud – Security management tool
- Azure Firewall – Protects network resources
- Network Security Groups (NSG) – Control inbound and outbound traffic

Identity & Access Management

- Azure Active Directory (Azure AD)
- Role-Based Access Control (RBAC)
- Multi-Factor Authentication (MFA)

Pricing & Cost Management

- Pay-as-you-go pricing model
- Azure Pricing Calculator – Estimate cloud costs
- Azure Cost Management – Track and optimize spending

Governance & Compliance

- Azure Policy – Enforce organizational standards
- Resource Locks – Prevent accidental deletion
- Azure Blueprints – Standardize deployments

Conclusion

AZ-900 is the foundation exam for Microsoft Azure. It helps beginners understand cloud concepts and Azure services.