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## TOP 40 AZ-104 Interview Questions & Answers (Domain-wise)

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### Domain 1: Manage Azure Identities and Governance (15–20%)

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#### **[1] What is Azure Active Directory (Azure AD)?**

Azure AD is Microsoft's cloud-based identity and access management service. It supports user authentication (OAuth, SAML), MFA, SSO, conditional access, and role-based authorization for cloud resources.

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#### **[2] Difference between Azure AD and On-premises AD DS?**

- **AD DS:** Traditional, LDAP/Kerberos, device domain-join, GPOs.
- **Azure AD:** Cloud-based, REST APIs, supports SaaS apps, SSO, Conditional Access.  
You can integrate both with **Azure AD Connect** for hybrid identity.

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#### **[3] What is Azure AD Connect and what are its sync options?**

It syncs on-prem AD objects to Azure AD.

Sync methods:

- Password Hash Sync
- Pass-through Authentication

- Federation (AD FS)
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#### 4 What is Role-Based Access Control (RBAC)?

RBAC assigns permissions to users, groups, or service principals at a specific scope (Subscription, RG, or resource).

Built-in roles: Owner, Contributor, Reader.

Follow the **least privilege** principle.

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#### 5 What are Azure Policies and how do they differ from RBAC?

- **RBAC** controls who can perform actions.
  - **Policies** control *what* can be deployed (e.g., restrict regions, enforce tags). They ensure governance and compliance.
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#### 6 What is Azure Blueprint?

A governance service to define a standard environment by combining ARM templates, policies, and RBAC assignments for consistent deployments.

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#### 7 What are Tags in Azure and why are they useful?

Tags are key-value pairs assigned to resources (e.g., `env=prod, owner=devops`) for:

- Cost tracking
- Automation
- Organization / filtering

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**8** How do you audit or track changes to Azure resources?

Use **Activity Logs** (who did what), **Azure Monitor logs**, and **Azure Policy compliance reports**.

Also, enable **Azure Resource Graph** for querying at scale.

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 **Domain 2: Implement and Manage Storage (15–20%)**

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**9** What is a Storage Account in Azure?

A container for services like Blob, File, Queue, and Table storage.

Types: Standard / Premium, LRS / ZRS / GRS replication.

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**10** What are the Blob Storage access tiers?

- **Hot:** Frequent access.
  - **Cool:** Infrequent access.
  - **Archive:** Rare access, lowest cost but retrieval delay.
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**11** How do you secure data in Azure Storage?

- **Encryption:** SSE for rest, TLS for transit.
- **Access control:** RBAC or Shared Access Signatures (SAS).

- **Networking:** Private endpoints or service endpoints.
  - **Soft Delete & Versioning** to protect against accidental deletion.
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## **12] What is Azure Files and how is it different from Blob Storage?**

Azure Files = fully managed SMB/NFS file shares.

Mountable to VMs and on-prem servers; supports snapshots and AD authentication.

Blob = object storage for unstructured data.

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## **13] What are Storage Account replication options?**

- **LRS:** Local redundancy (single region).
  - **ZRS:** Zone redundancy.
  - **GRS:** Geo redundancy (secondary region).
  - **RA-GRS:** Geo redundancy + read access to secondary.
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## **14] How do you use Azure Storage Explorer?**

A GUI tool to manage blobs, tables, and file shares, upload/download data, and generate SAS tokens for secure access.

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## **15] What is Azure Backup and how does it protect data?**

A PaaS service for backup of VMs, files, and workloads.

Backups stored in a **Recovery Services Vault** with configurable schedules and retention policies.

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**16] What is Azure Site Recovery (ASR)?**

A DR service replicating workloads (on-prem or Azure) to another Azure region.

Supports planned/unplanned failovers and DR drills.

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 **Domain 3: Deploy and Manage Azure Compute Resources (20–25%)**

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**17] What is a Virtual Machine (VM) in Azure?**

An IaaS compute resource running Windows/Linux.

Key configuration: size (SKU), OS disk, data disks, networking, and availability options.

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**18] What are Availability Sets and Availability Zones?**

- **Availability Set:** Protects from rack/power/network failure (fault & update domains).
  - **Availability Zone:** Protects from datacenter-level failure (physically separate zones).
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**19] How do you resize or scale a VM?**

Stop/deallocate VM → change SKU → restart.

Ensure new size is available in region/zone.

For autoscaling, use **VM Scale Sets (VMSS)**.

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**20 What is a VM Scale Set (VMSS)?**

Group of identical, load-balanced VMs that automatically scale in/out based on metrics like CPU, memory, or queue length.

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**21 What are Managed Identities in Azure?**

A feature that provides an automatically managed identity for VMs and services to access other Azure resources securely — no credentials stored in code.

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**22 What is Azure Automation Account?**

A service to automate tasks (via runbooks), update management, and configuration (Desired State Configuration).

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**23 How do you deploy compute using Infrastructure as Code (IaC)?**

Use **ARM templates**, **Bicep**, **Terraform**, or **Azure CLI/Powershell** to define declarative configurations for reproducible deployments.

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**24 What is Just-In-Time (JIT) VM Access?**

Security feature (via Defender for Cloud) that allows temporary RDP/SSH access to VMs for a limited time to reduce attack surface.

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 **Domain 4: Configure and Manage Virtual Networking (20–25%)**

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**25 What is a Virtual Network (VNet)?**

A logically isolated private network in Azure for connecting VMs and services. Includes address space, subnets, NSGs, and routing.

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**26] What are Network Security Groups (NSGs)?**

Firewall-like rules controlling inbound/outbound traffic based on source/destination, port, and protocol at subnet or NIC level.

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**27] What is Azure VPN Gateway?**

Connects Azure VNets to on-prem networks securely over IPsec tunnels.  
Supports Site-to-Site and Point-to-Site connectivity.

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**28] Difference between VPN Gateway and ExpressRoute.**

- **VPN Gateway:** IPsec over the internet.
  - **ExpressRoute:** Dedicated private connection with low latency and high reliability.
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**29] What is Azure Load Balancer?**

Distributes traffic across backend pool VMs (Layer 4).  
Supports inbound NAT rules and health probes.

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**30] Difference between Azure Load Balancer and Application Gateway.**

- Load Balancer → Layer 4 (TCP/UDP).
- Application Gateway → Layer 7 (HTTP/HTTPS), supports SSL termination, path-based routing, WAF.

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### **31 What is Azure Front Door?**

A global, scalable entry point (Layer 7) for web applications with caching, WAF, and intelligent routing to nearest region.

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### **32 What is Azure DNS?**

DNS hosting service to manage public/private DNS zones within Azure.  
You can map domains using A, CNAME, MX, TXT records.

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### **33 How do you troubleshoot Azure networking issues?**

Use **Network Watcher** → IP Flow Verify, Connection Troubleshoot, NSG Flow Logs, and effective security rules.

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### **34 How do you connect VNets across regions or subscriptions?**

Using **VNet Peering** or **Virtual WAN**.  
Supports both global and cross-subscription connections.

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## **Domain 5: Monitor and Back Up Azure Resources (10–15%)**

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### **35 What is Azure Monitor?**

A unified monitoring service that collects metrics and logs from Azure resources for analysis, visualization, and alerting.

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### **36 What is Log Analytics?**

Part of Azure Monitor — stores logs in a workspace and queries them using **KQL** (Kusto Query Language).

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### **37 What is Application Insights?**

APM (Application Performance Monitoring) service that tracks app availability, performance, dependencies, and user behavior.

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### **38 What is Azure Advisor?**

Recommendation engine for performance, cost, reliability, and security optimizations based on telemetry and best practices.

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### **39 How do you set up alerts in Azure?**

Through **Azure Monitor Alerts**.

Create a condition (metric/log), threshold, and action group (email, webhook, logic app, automation).

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### **40 What are Recovery Services Vaults used for?**

They store and manage backup and recovery data (VM backups, file backups, ASR replication metadata).

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### **✓ AZ-104 Domain Weightage Summary**

Domain	Weigh t	Topics Covered
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Manage Azure identities and governance	15–20 %	RBAC, Azure AD, Policies, Blueprints
Implement and manage storage	15–20 %	Blob, Files, Backup, ASR
Deploy and manage compute resources	20–25 %	VMs, Scale Sets, Automation
Configure and manage virtual networking	20–25 %	VNets, NSGs, Load Balancer, VPN
Monitor and back up resources	10–15 %	Monitor, Log Analytics, Alerts

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