# Azure Virtual Machines Quiz

1. **1. You are designing an Azure Virtual Machine (VM) deployment that needs to ensure high availability for a critical application. The application requires two VMs to be constantly running and able to fail over between different fault domains and update domains. Which Azure feature should you utilize to meet these requirements?**

* a) Availability Zones
* b) Virtual Machine Scale Sets
* c) Availability Sets
* d) Azure Load Balancer

1. **2. A company is deploying a new application to Azure VMs. The application is sensitive to network latency and requires direct connectivity between VMs without traversing a public IP address. How should you configure the networking for these VMs to optimize for low latency and private communication?**

* a) Deploy VMs into different virtual networks and peer them.
* b) Assign public IP addresses to all VMs and use Network Security Groups (NSGs).
* c) Place all VMs within the same virtual network and subnet.
* d) Utilize Azure VPN Gateway for inter-VM communication.

1. **3. You have an Azure VM running a critical SQL Server instance. You need to ensure that the VM's disk performance is optimized for transactional workloads and provides the lowest possible latency. Which storage solution should you choose for the data disk?**

* a) Standard HDD
* b) Standard SSD
* c) Premium SSD
* d) Azure Files

1. **4. A development team needs to rapidly provision and deprovision identical Azure VMs for testing environments. They require a solution that allows for automated scaling based on demand and simplifies management. Which compute service is best suited for this scenario?**

* a) Azure App Service
* b) Azure Container Instances
* c) Virtual Machine Scale Sets
* d) Azure Functions

1. **5. You are troubleshooting a performance issue on an Azure VM. The CPU utilization is consistently high, but the application logs do not indicate any specific bottlenecks. You suspect an issue with the underlying VM host. What is the most appropriate next step to investigate this issue within Azure?**

* a) Restart the VM.
* b) Deallocate and reallocate the VM.
* c) Resize the VM to a larger size.
* d) Check Azure Service Health for regional outages.

1. **6. A company needs to deploy several Azure VMs that will host a proprietary application. The application requires specific network configurations, including custom DNS settings and a specific range of private IP addresses. Which Azure networking component should you primarily configure to meet these requirements?**

* a) Network Security Group (NSG)
* b) Public IP address
* c) Virtual Network (VNet)
* d) Azure Load Balancer

1. **7. You are managing an Azure VM and need to ensure that only specific inbound ports are accessible from the internet while blocking all other traffic. Which Azure networking feature should you use to achieve this granular control?**

* a) Application Security Groups (ASG)
* b) Virtual Network (VNet)
* c) Network Security Group (NSG)
* d) User Defined Routes (UDR)

1. **8. You have an Azure VM that periodically experiences high memory utilization, causing the application to slow down. You want to implement a solution that automatically scales the VM to a larger size when memory usage exceeds a certain threshold, and scales back down when it drops. Which Azure feature would you use?**

* a) Auto-shutdown
* b) Azure Monitor alerts with manual resizing
* c) Virtual Machine Scale Sets with auto-scaling rules
* d) Azure Automation runbook for resizing

Answers:

c) Availability Sets

c) Place all VMs within the same virtual network and subnet.

c) Premium SSD

c) Virtual Machine Scale Sets

b) Deallocate and reallocate the VM.

c) Virtual Network (VNet)

c) Network Security Group (NSG)

d) Azure Automation runbook for resizing