

# AZ 104 Practice Exam

60 issues | 2 hours 50 minutes | A 70% correct answer rate is required to pass

## DOMAIN BREAKDOWN

- Manage Azure Active Directory Identity and Governance 17%
- Implement and Manage Azure Storage 12%
- Deploy and Manage Azure Compute Resources 27%
- Configure and Manage Azure Networking Services 32%
- Monitor and Backup Azure Resources 12%

**QUESTION 1**

Your organization is planning the deployment of an AKS cluster. You want to ensure that every single pod in the AKS cluster receives a private IP address. Which of the following network configurations would you use to provide this functionality?

- 1. Container Network Interface
- 2. Microsoft routing
- 3. Kubenet
- 4. Service endpoint

## QUESTION 2

Your company has recently migrated to Azure Active Directory. You have been told to join all users' devices to the domain, but limit the number of devices to 5 per user. What should you do?

1. Create a point-to-site VPN for all users
2. Add a VPN gateway to your network infrastructure
3. Go to the Licenses blade in Azure Active Directory
4. Go to the Device Settings blade in Azure Active Directory

### QUESTION 3

You have 2 virtual networks named VNet1 and VNet2. VNet1 is located in the West US region, whereas VNet2 is located in the East US region. You need to configure a virtual machine that's located in VNet1 to also communicate with VMs in VNet2. From the choices available, how can you enable communication between resources in VNet1 and VNet2?

1. Migrate just the VM disks to VNet2
2. Migrate the network interface card (NIC), the network security group (NSG), and the VM disks to VNet2
3. Migrate the VNet1 VM to VNet2 and leave the other VM components on VNet1
4. Configure a VNet-to-VNet VPN gateway connection to allow communication between VNets in different regions

**QUESTION 4**

You have an Azure virtual machine running Windows Server 2016. You need to collect OS level metrics on this virtual machine, including Windows event logs and performance counters. Which of the following items do you need in order to collect this metrics data?

- 1. Guest-level monitoring
- 2. Log Analytics agent
- 3. Azure Performance Diagnostics VM Extension for Windows
- 4. InfluxData Telegraf Agent
- 5. Storage account for diagnostics data

## QUESTION 5

You have an Azure subscription that contains the following virtual machine scale set named myScaleSet:

InstanceId	LatestModelApplied	Location	ModelDefinitionApplied	Name	ProvisioningState	ResourceGroup	VmId
0	True	southcentralus	VirtualMachineScaleSet	myScaleSet_0	Succeeded	testgroup	06717084-6e8e-43db-95d1-daf2e6d94c28
1	True	southcentralus	VirtualMachineScaleSet	myScaleSet_1	Succeeded	testgroup	d8adc5e0-d89f-4555-881f-4f08065eae0f
3	True	southcentralus	VirtualMachineScaleSet	myScaleSet_0	Succeeded	testgroup	123f54as-6e8e-43db-a54f-daf2e6dadf54
5	True	southcentralus	VirtualMachineScaleSet	myScaleSet_1	Succeeded	testgroup	ad58d9fg-d89f-4555-881f-4f08a4d5ae12

You need to remove instance ID 5 from the virtual machine scale set. Which of the following commands should you use?

1. `az scale set remove --instance-ids 3 --name myScaleSet_5 --resource-group testgroup`
2. `Remove-AzVmss -ResourceGroupName "testgroup" -VMScaleSetName "myScaleSet"`
3. `Remove-AzVmssVMDataDisk -VM $VirtualMachine -Lun 0`
4. `az vmss deallocate --instance-ids 5 --name myScaleSet --resource-group testgroup`

## QUESTION 6

Which of the following load balancing configurations checks on the availability of virtual machines in the backend pool of a Basic Load Balancer?

1. Health probe
2. TCP reset
3. Session persistence
4. NAT rule



## QUESTION 7

You create an Azure storage account named consiliumstore with a publicly accessible container named container1. You upload a file to container1 named pic1.png. What will be the URL used in order to access this blob?

1. <https://portal.azure.com/consiliumstore.blob.core.windows.net/pic1.png>
2. <https://blob.core.windows.net/consiliumstore/container1/pic.png>
3. <https://pic1.consiliumstore.blob.core.windows.net>
4. <https://consiliumstore.blob.core.windows.net/container1/pic1.png>

By default, the URL of the blob will be the storage account name, followed by blob.core.windows.net, the container name, and then the name of the blob.

**QUESTION 8**

You have an Azure subscription named Subscription1. You have created a web app named App1 in Subscription1 that is sourced from a Git repository named Git1. You need to ensure that every commit to the master branch in Git1 triggers a deployment to a test version of the application before releasing it to production. What are two changes that you must make to App1 to fulfill this requirement?

- 1. Add a new deployment slot to App1 to release the test version of App1
- 2. Create a build server with the master branch of Git1 as the trigger
- 3. Create a new web app and configure failover settings from test to production
- 4. Configure custom domains for test and production versions of App1

## QUESTION 9

VM1 is a D-series Linux virtual machine in an availability set, which has availability across two fault domains and five update domains. VM1 experiences a hardware failure, but the memory is preserved and doesn't require a reboot. What will happen to the VM when this event occurs?

1. Since the memory is preserved, the VM will migrate to all new hardware, except for the memory component.
2. Azure will migrate VM1 from failing hardware to a healthy physical host and the VM will be paused for up to five seconds.
3. The VM will be decommissioned and a support ticket will be automatically generated. You will have to call support in order to retrieve the data from your VM.
4. Azure will keep the VM running on the same hardware because fault domains are in place for the VM.

## QUESTION 10

You work at the IT help desk for Consilium Corporation. You have been getting an influx of calls into the help desk about resetting users' passwords. They keep reporting that they can't seem to figure out how to reset their password in order to gain access to their Customer Relationship Management (CRM) software. What do you do?

1. Verify that self-service password reset is enabled in Azure Active Directory.
2. Ensure that the users who are having problems are within the correct AD group.
3. Make sure you have Azure Active Directory Free.
4. Issue a document to inform users of password reset procedure.
5. Make sure they have their verification device (mobile app or access to email).

## QUESTION 11

You have an Azure subscription named Subscription1. In Subscription1 you have two Azure VMs named VM1 and VM2, both running Windows Server 2016. VM1 is backed up using a Recovery Services vault, with a backup policy configured to produce a daily backup and keep that daily backup for 7 days. Also, a snapshot is kept for 2 days. VM1 is compromised by a virus that infects the entire system, including the files. You need to restore the files from yesterday's backup of VM1. What method can you use to restore the files to in the quickest manner?

1. Restore from VM2
2. Restore in-place
3. Create a new Azure VM and restore to it
4. Restore the VM1 snapshot

## QUESTION 12

Which of the following load balancing configurations can you utilize to ensure that the same virtual machine in the backend pool services the same client?

1. Health probe
2. Load balancing rule
3. NAT rule
4. Session persistence

### QUESTION 13

You have a general-purpose v1 storage account named consiliumstore that has a private container named container2. You need to allow read access to the data inside container2, but only within a 14 day window. How do you accomplish this using the Azure portal?

1. Create a shared access signature (SAS)
2. Create a stored access policy
3. Upgrade the storage account to general-purpose v2
4. Create a service shared access signature (SAS)

## QUESTION 14

Your company has recently added a few new users to your Azure Active Directory. You have already added them to a security group, and now you have asked them to join their devices to the tenant. When they join their devices, you have to ensure they are prompted to use a mobile phone to verify their identity. What is the simplest way to configure this functionality?

1. Configure a point-to-site VPN
2. Enable conditional access
3. Require multi-factor authentication to join devices
4. Sign up for Azure AD Premium



## QUESTION 15

You manage a virtual network named VNet1 that is hosted in the West US region. Two virtual machines named VM1 and VM2, both running Windows Server, are on VNet1. You need to monitor traffic between VM1 and VM2 for a period of five hours.

What solution could you use to meet these requirements?

1. Connection Monitor in Azure Network Watcher
2. Application Insights
3. Azure Monitor for VMs
4. Azure SQL Analytics

QUESTION 16

You have an Azure subscription that contains 3 virtual machines that run Windows Server 2016 and are configured as follows:

You create a public DNS zone named consilium.com and a private DNS zone named axiodata.com

In the settings for the private DNS zone, you create a virtual network link to VNET2 and enable auto registration. What will happen to VM2 when it starts up?

Name	PublicIP	PrivateIP	VNetName	DNSSuffix
VM1	65.74.185.47	192.1.0.4	VNET1	consilium.com
VM2	47.185.85.63	10.1.0.4	VNET2	axiodata.com
VM3	66.166.78.43	192.1.0.5	VNET1	consilium.com

- 1. A record for VM2 will be added to the axiodata.com DNS zone
- 2. A record for VM2 will be added to both consilium.com and axiodata.com
- 3. A record for VM2 will be added to the consilium.com DNS zone
- 4. A record for VM2 will be added to the axiodata.com DNS zone only once you configure the DNS servers for VNET2

## QUESTION 17

You are backing up your virtual machines using Azure Backup. You have 3 resource groups: RG1, RG2, and RG3. Inside of each, you have 2 virtual machines. VM1 and VM2 are located in resource group RG1, and VM3 and VM4 are located in resource group RG2. VM1 and VM3 are located in the West US region, VM2 is located in the South Central US region, and VM4 is located in the East US region. Your Azure Recovery Services vault is located in the West US region and inside of resource group RG3. Which of the following virtual machines can you backup with your existing Recovery Services vault?

1. VM1 and VM4

**2. VM1 and VM3**

The virtual machines must exist within the same region as the Recovery Services vault in order to back them up.

3. VM1, VM2, VM3, and VM4

4. None of the VMs

### QUESTION 17

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1. VM1 and VM4
2. VM1 and VM3
3. VM1, VM2, VM3, and VM4
4. None of the VMs

## QUESTION 18

Your web application is hosted in a VNet on a virtual machine running UbuntuLTS and has a public IP address. The virtual machine has a default network security group (NSG) implemented on the network interface (NIC) level. No other NSGs exist in this VNet. However, you are unable to visit the web app hosted on your VM over HTTP. Why?

1. You need to allow traffic inbound for port 80.
2. You need to allow traffic outbound for port 443.
3. You need to host the app using App Service.
4. You need to allow inbound for port 80 and allow outbound for the ephemeral ports.

### QUESTION 19

Your organization has several offices across the United States. It utilizes file servers to provide a shared endpoint for departments within the organization. The organization wants to migrate to the cloud. Which of the following Azure services would replace the on-premises file servers?

1. Azure File Sync
2. Azure Tables
3. Azure Files
4. Azure Blob

## QUESTION 20

You have an on-premises file server named campusshare that you are extending using Azure File Sync. You have already created a sync group in Azure File Sync. What steps do you need to take to finish extending your on-premises file server with Azure File Sync?

(Choose 3)

1. Register the server
2. Install Microsoft Monitoring agent
3. Create a server endpoint in your sync group
4. Install Azure File Sync agent
5. Create a Recovery Services vault
6. Enable replication

## QUESTION 21

You have two virtual networks, VNet1 and VNet2. VNet 1 has an IP CIDR of 10.0.0.0/16, and VNet2 has an IP CIDR of 192.168.0.0/16. You want to be able to communicate between these virtual machines privately over the Microsoft backbone. Which of the following could you use to accomplish this without transitivity to other potentially peered networks?

1. Azure WAN
2. VPN gateway
3. VNet peering
4. ExpressRoute



## QUESTION 22

You are currently using a load balanced availability set containing 2 virtual machines. These virtual machines are balanced behind a Basic SKU load balancer. You notice that these 2 virtual machines do not properly serve your workload during peak hours when traffic is way up. You need a solution that will allow you to add virtual machines on the fly when they are needed. Which of the following would provide the most effective solution?

1. Add another virtual machine into the availability set.
2. Add a virtual machine scale set to the backend pool.
3. Create a scale set and use it to replace the backend pool.
4. Upgrade the Basic SKU load balancer to a Standard SKU.

### QUESTION 23

You are planning out the network design for a VNet where you will be hosting an application with a database layer, logic layer, and a web frontend. How many subnets should you create within this VNet?

1. 1
2. 4
3. 3
4. 2

## QUESTION 24

As an organization, you want to provide users' access to the storage accounts in Azure so that they will be able to work with data stored in the Blob service. These users are non-technical and prefer a GUI interface. You generate SAS tokens for these users that provide limited access to the storage blobs. What storage utility can these users utilize to access the blobs?

1. Export jobs
2. Import jobs
3. Storage Explorer
4. AzCopy

## QUESTION 25

You have created an application named ContainerApp1 that is to be run on Linux containers. You've created an Azure container instance with an FQDN, but you notice that when the container restarts, all application data is lost. What is the best solution to preserve the data associated with your application?

1. Mount an Azure file share as a volume in Azure Container Instances
2. Create a storage account and share the SAS with the application
3. Create a public blob storage container and share the URI with the application
4. Run the container on a VM, and use the managed disk attached to the VM

## QUESTION 26

Your company wants to implement a load balancing solution in Azure that provides a 99.99% SLA, but it also wants to minimize costs. Which of the following in combination would provide the most appropriate, cost effective solution?

(Choose 2)

1. Backend pool of 2 virtual machines
2. Basic Load Balancer
3. Backend pool of 1 virtual machine
4. Standard Load Balancer
5. Standard Application Gateway

## QUESTION 27

You have a number of virtual machines and web applications running in your Azure environment. These Azure resources are critical for business operations, so you've locked the resources in order to prevent deletion. In addition, how can you alert on these actions in the portal, and notify your team via email and SMS when a user is trying to delete or create a new resource from within your Azure subscription?

(Choose 2)

1. Query administrative events and copy link to query
2. Create a new action group
3. Pin the activity log to your dashboard
4. Create a new alert rule

## QUESTION 28

You have a subscription named Subscription1. You would like to be alerted upon certain administrative events within Subscription1 to detect unauthorized access. Which of the following is the quickest method to set up these types of alerts?

1. Monitor > Alerts > New Alert Rule
2. Policy > Assignments > Assign Policy
3. Log Analytics Workspace > *myWorkspace* > Advanced Settings
4. Subscriptions > *mySubscription* > Activity Log > New Alert

## QUESTION 29

You have an Azure subscription named Subscription1. You would like to connect your on-premises environment to Subscription1. You have to meet three requirements from the business. The first requirement is that the connection from the on-premises office and Azure must be a private connection. No network traffic is allowed to go over the public internet. The second requirement is that all traffic from the on-premises office and Azure must happen at layer 3 (network layer). The third requirement is that this connection from on-premises to Azure must be redundant to minimize the opportunity for failure. What type of connection fulfills these three requirements?

1. Site-to-Site VPN
2. ExpressRoute
3. Virtual WAN
4. ExpressRoute with Premium add-on



### QUESTION 30

In regards to the governance capabilities of Azure, which of the following statements is true?

1. Resource groups can be nested in one another
2. Resource locks are inherited from parent scopes
3. Resources inherit the tags of their resource group
4. Resources can be moved without validation

### QUESTION 31

In your organization, you have a subscription with 3 resource groups. You are trying to track the costs of resources by department, but every department uses resources from each resource group. How can you best enable the organization to track the costs of its resources?

1. Create resource locks for each resource
2. Assign tags to each resource group
3. Assign tags to each resource
4. Filter cost analysis by resource groups

## QUESTION 32

You are using an Azure Resource Manager (ARM) template to deploy a VM. Check the template contained in question32.json.

Reviewing the template, what would we modify to ensure that we launch the VM using an Ubuntu 18.04 LTS image version rather than 16.04.0-LTS?

1. Replace the variable value for OSVersion with 18.04-LTS
2. Removing the variables section
3. By changing the default value of our ubuntuOSVersion parameter to 18.04-LTS
4. Select the OS version during deployment of this template

### QUESTION 33

You are using an Azure Resource Manager (ARM) template to deploy a VM. The template contained in quetion33.json file.

After reviewing the template, what can we determine as the default version of the VM?

1. Ubuntu 16.04.0-LTS
2. Ubuntu 18.04 LTS
3. Ubuntu 14.04.5-LTS
4. Ubuntu 12.04.5-LTS

### QUESTION 34

You've created a Dockerfile that contains the necessary steps to build an image that you plan to use for your application running as a Web App in App Services named APP1. You have created an Azure Container Registry, which is where you plan to store your images to be used for APP1. What should your next step be?

1. Run the docker login command
2. Run the az acr build command
3. Run the docker push command
4. Create the App Service Plan

### QUESTION 35

You are responsible for 3 virtual networks named Spoke1, Spoke2, and Hub. You need to ensure that resources within Spoke1 can communicate with resources in Spoke2. You also need to ensure that all communication from Spoke1 to Spoke2 is private. Due to company policy, you cannot connect Spoke1 to Spoke2 directly. What can you do to reach this requirements?

1. Create three virtual network gateways to enable connections between Spoke1 and Spoke2 through the Hub VNet.
2. Create a private endpoint from the Hub VNet to enable traffic between Spoke1 to Spoke2.
3. Create a peering between each Spoke VNet and the Hub VNet. Deploy a network virtual appliance in the Hub VNet and configure routes to forward traffic between Spoke1 and Spoke2 through the network virtual appliance.
4. Create a firewall rule to allow traffic from Spoke1 to Spoke2 using the Hub VNet.

### QUESTION 36

You have two subscriptions, one named Subscription1 and the other named Subscription2. Both subscriptions are located within the same tenant. You have one Azure virtual machine located within Subscription1 and another Azure virtual machine within Subscription2, and you'd like to view CPU utilization metrics on both virtual machines. How can you achieve this while maintaining the minimum number of Azure resources and minimizing cost?

(Choose 2)

1. Turn on VM insights in Azure Monitor
2. Install the Log Analytics agent on the VMs
3. Create a Log Analytics workspace for both VMs
4. Enable guest-level monitoring on each VM

### QUESTION 37

You have an Azure subscription named Subscription1. In Subscription1, you have a web server that has the IP address 10.1.0.83 and a database server that has the IP address 10.1.0.142. Instead of remembering the IP addresses of the servers, you'd like to connect to these servers using a DNS name. With no DNS server currently, and without having to create a new DNS server, how can you access your database server from your web server by the DNS name `db.yourcompany.com`?

1. Use a public DNS zone
2. Promote the web server to a domain controller
3. Access the domain controller
4. Use a private DNS zone



### QUESTION 38

You are implementing a load balancing solution for your application, and you want it to provide multisite capabilities. Which of the following will provide you with the appropriate solution?

1. App Service
2. Azure WAN
3. Application Gateway
4. Azure Load Balancer

### QUESTION 39

You have decided that you want to create 2 AKS clusters. Each of the clusters has different networking requirements. ClusterAlpha needs each pod to have a private IP address. ClusterBravo requires that each node has a private IP address. Which of the following options would you select for a networking configuration that satisfies the requirements of ClusterBravo?

1. Container Network Interface
2. Azure Private Link
3. Kubenet
4. Private endpoint

### QUESTION 40

You have a standard load balancer that directs traffic from port 80 externally to 3 different virtual machines. You need to direct all incoming TCP traffic on port 5000 to port 22 internally for connecting to Linux VMs. What do you need in order to connect to the VM via SSH?

(Choose 2)

1. A public IP address for all 3 VMs
2. A Network Address Translation (NAT) rule
3. A route table with at least one rule
4. A network security group (NSG)

#### QUESTION 41

You have an Azure subscription with a virtual machine named VM1. You are using a Recovery Services vault (RSV) to back up VM1 with soft delete enabled. The backup policy is set to back up daily at 11 PM UTC, retain an instant recovery snapshot for 2 days, and retain the daily backup point for 14 days. After the initial backup of VM1, you are instructed to delete the vault and all of the backup data. What should you do?

(Choose 2)

1. Wait 15 days before deleting the data
2. Delete the backup policy
3. Wait 14 days before deleting the data
4. Delete Backup Jobs Workload
5. Turn off soft delete in the vault security settings
6. Stop the backup of VM1 and delete backup data

## QUESTION 42

VM1 is located in the East US region. You have added a Premium SSD data disk to VM1, but the IOPS are not satisfying the needs of your application. How can you change the speed of the disk?

(Choose 2)

1. Create a new disk and migrate the data
2. Export the disk and convert to VHD
3. Shut down (deallocate) the VM
4. Select the disk configuration and increase the size

### QUESTION 43

The senior manager of your IT department has asked that you use Azure Storage to replace your on-premises storage solution. You currently store your data redundantly across 3 different host machines in an on-premises data center. You are in the process of creating the storage account and must select a redundancy option. Which of the following options would you select to match your current on-premises infrastructure redundancy levels?

1. Locally redundant storage
2. Geo-redundant
3. Geo-zone-redundant storage
4. Zone-redundant storage

## QUESTION 44

You have an application that runs on instances in a virtual machine scale set (VMSS). The number of instances in the VMSS is at 3 starting on Monday. The minimum number of instances is 1, and the maximum is 5 instances. There are 2 scaling rules for this VMSS:

Rule	Condition.	Action
Rule1	CPU > 75%	+1 instance
Rule2	CPU < 25%	-1 instance

Based on the rules above and the chart below, on Wednesday evening how many instances will there be in the VMSS?

CPU%	Time(UTC)	Day
75	12:01	Tuesday
20	13:36	Tuesday
85	12:10	Wednesday
20	19:07	Thursday

1. 3 instance
2. 4 instances
3. 5 instances
4. 2 instances

## QUESTION 45

You have a subscription named Subscription1. Subscription1 has two virtual networks named VNet1 and VNet2 in two different resource groups. VNet1 is located in the West US region and VNet2 is located in the East US region. You need to apply a network security group named NSG1 to a subnet in VNet1. NSG1 is located in the East US region. How do you attach NSG1 to the subnet in VNet1?

1. Select the subnet and choose NSG1 from the network security group drop-down
2. You can not attach NSG1 to the subnet in VNet1. Create a new network security group in the West US region
3. Move VNet1 into a resource group located in the East US region
4. Move NSG1 into the VNet1 resource group



#### QUESTION 46

You have two subscriptions named Subscription1 and Subscription2. You are logged into Azure using Azure PowerShell from Computer1. How can you identify which subscription you are currently viewing and then switch from one subscription to the other for the current session at Computer1?

(Choose 2)

1. Get-AzContext
2. AzShow-Context
3. Select-AzContext
4. Set-AzContext -SubscriptionName

## QUESTION 47

You are an Azure Administrator for the organization IdentityCraftaculous. There are multiple subscriptions in the organization. Recently, it was inferred that the organization is spending too much money on VMs, specifically because of G series instances that are being provisioned. To stop this from happening, you make a policy definition as defined in the question47.json file.

Now all you have to do is decide how to assign this policy. You want to stop G series instance from being provisioned across the organization. Which of the following design strategies helps ensure the most effective implementation of this policy, while having the least administrative overhead?

1. Assign this policy to all of the resource groups throughout the organization.
2. Create management groups and organize subscriptions into them, then assign the policy to all management groups under the root management group.
3. Use management groups to organize subscriptions into logical management group containers, where you can then assign the policy to all subscriptions owned by the organization.
4. Use management groups to organize subscriptions into logical management group containers, where you can then simply assign the policy to the root management group.

#### QUESTION 48

You have an on-premises environment, as well as your Azure environment with a subscription named Subscription1. Subscription1 has a virtual network named VNET1 that you need to connect to the on-premises network securely using an ExpressRoute link and Site-to-Site VPN. What resources do you need in order to establish the connection while minimizing cost?

(Choose 2)

1. A network virtual appliance
2. A VPN gateway
3. A route table
4. No resources are needed, as ExpressRoute is encrypted by default

#### QUESTION 49

You are the Azure Administrator working for CloudMotive Inc. and you have been tasked with ensuring proper access permissions for all Azure AD users. Adam is the Solutions Architect for the Marketing team. All of the resources for the Marketing team are within the MarketingRG resource group. You need to provide access for Adam to manage all resources at the MarketingRG scope. Which of the following built-in roles would you assign to Adam to provide access to manage all resources in the MarketingRG resource group without providing Adam the ability to create role assignments for MarketingRG?

1. Contributor
2. Owner
3. Resource Group Manager
4. User Access Administrator

## QUESTION 50

You have a web application that serves video and images to those visiting the site. You start to notice that your web server is overloaded, and often crashes because the requests have consumed all of its resources. To combat this, you've added an additional web server, and you plan to load balance these servers by serving images from the first server only and serving video from the second server only. Which Azure resource can you implement that will properly load balance (at OSI layer 7) with URL-based routing and secure with SSL at the lowest cost?

1. Web Application Firewall
2. Azure Application Gateway
3. Azure Front Door
4. Azure Load Balancer

## QUESTION 51

You have a network security group (NSG) that is associated with a network interface that is attached to an Azure virtual machine named VM1 running Windows Server 2019. VM1 is in subnet named subnet1, in a virtual network named VNet1. A different NSG is attached to subnet1, but you notice that there is an inbound rule to allow port 3389. When you try to connect to VM1, you cannot connect. You reviewed the NSG and the source IP address and the protocol are correct. Which action should you take according to best practices for NSGs in Azure?

1. The protocol on the NSG rule is set to UDP
2. The NSG attached to the network interface needs to be removed
3. The source IP address on the NSG rule is incorrect
4. An inbound rule for the NSG attached to the network interface needs to be added

QUESTION 52

You have created a new Azure virtual machine in a subnet named Subnet1 with an attached network interface card named NIC1. The NIC1, attached to Subnet1, has the following effective routes:

Source	State	Address Prefix	Next Hop
Default	Active	10.1.0.0/16	Virtual Network
Default	Invalid	0.0.0.0/0	Internet
Default	Active	10.0.0.0/8	None
Default	Active	100.64.0.0/10	None
Default	Active	192.168.0.0/16	None
Default	Active	25.33.80.0/20	None
Default	Active	25.41.3.0/25	None
User	Active	0.0.0.0/0	None

What will happen when the virtual machine tries to communicate with a VM on a different network?

- 1. Traffic will be dropped and no connection will be established
- 2. Traffic will be forced internally
- 3. Traffic will be sent successfully
- 4. Traffic will be forced out to the internet

### QUESTION 53

Your on-premises network consists of two servers named Serve1 and Serve2, both running Windows Server 2019 Datacenter. On Serve1, a file exists named file1.txt. On Serve2, a file exists also named file1.txt, but its contents are different. You set up a file sync service in Azure to sync the folders that contain both versions of file1.txt to a cloud endpoint. First, you setup Serve1 as a server endpoint, then a few hours later, Serve2. What will happen to file1.txt?

1. file1.txt on Serve1 will be moved to another folder
2. file1.txt on Serve1 will be renamed file1-old.txt
3. file1.txt will be overwritten as soon as the Serve2 endpoint is added
4. file1.txt from Serve1 will be renamed file1-Serve1.txt



QUESTION 54

You have an Azure subscription that contains the following unused resources:

- Network interface (nic0)
- Static public IP (pip1)
- Standard load balancer (lb1) with 5 rules configured
- Virtual network (VNet2) = 10.1.0.0/16
- Stopped (deallocated) virtual machine (VM3)

Which of these unused resources should you remove to lower cost? (Choose 2)

1. Virtual network (VNet2)
3. Standard load balancer (lb1)
3. Static public IP (pip1)
4. Stopped (deallocated) virtual machine (VM3)
5. Network interface (nic0)

## QUESTION 55

You have two subscriptions named Subscription1 and Subscription2. You are currently managing resources in Subscription1 from Computer1, which has the Azure CLI installed. You need to switch to Subscription2. Which command should you run?

1. `az set account --subscription "Subscription2"`
2. `az subscription set "Subscription2"`
3. `az account set --subscription "Subscription2"`
4. `Select-AzureSubscription -SubscriptionName "Subscription2"`

## QUESTION 56

You have two Azure virtual machines named VM1 and VM2. VM1 is using the Red Hat Enterprise Linux 8.1 (LVM) operating system and is located in VNet1, within subnet1. VM2 is using the Windows Server 2019 operating system and is located in VNet1, within subnet2. VNet1 has custom DNS configured, pointing to a DNS server with the IP address 172.168.0.6. VM2 has 10.0.1.15 configured as the DNS server on its network interface. Which DNS server will VM2 use for DNS queries?

1. 10.0.1.15 for primary, 172.168.0.6 as secondary
2. 8.8.8.8
3. 172.168.0.6
4. 10.0.1.15

## QUESTION 57

You have an Azure subscription named Subscription1. In Subscription1, you have an Azure virtual machine named VM1, which uses the "Standard\_A2\_v2" size. Attached to VM1 are two network interface cards. You require a third network interface card with a network bandwidth above 1000 Mbps for your storage area network. What should you do?

1. Create a new subnet with a sufficient number of available IP addresses
2. Change the VM SKU to Standard\_A4 or larger
3. Create an additional VM in the same subnet and connect to VM1 over the LAN
4. Create a new storage account to store data for VM1

### QUESTION 58

You are using Azure VMs to host a critical user-facing application. You want to ensure that you have a backup solution prepared for the VM. Which of the following steps would you take first in setting up a backup solution?

1. Configure a recovery plan
2. Create a Recovery Services vault
3. Create a backup policy
4. Configure Azure Backup

## QUESTION 59

You have a resource group named RG1 and you plan to move a virtual machine to another subscription where resource group RG2 is located. You attempt to move this virtual machine, but find that you are unable to move the virtual machine when validating the move. What is the reason for this?

1. Virtual machines cannot be moved across resource groups inside of Azure.
2. Virtual machines cannot be moved across subscriptions without also moving all the VM's dependent resources.
3. You cannot move virtual machines, you must recreate the virtual machine in the destination subscription.
4. Moving operations do not support moving virtual machines across subscriptions inside Azure.

## QUESTION 60

You want to provide users within your tenant the ability to register their devices with Azure AD, but you don't want to allow all users to register devices. What can you do to control this?

1. Use security groups and allow a select group to register devices.
2. Use select administrative units to register devices.
3. Require multi-factor authentication for registering devices.
4. It is not possible to restrict which users can register devices.

**Answer**



**QUESTION 1**

Your organization is planning the deployment of an AKS cluster. You want to ensure that every single pod in the AKS cluster receives a private IP address. Which of the following network configurations would you use to provide this functionality?

**1. Container Network Interface**

Container Network Interface is the network config for AKS clusters that provides an IP address for pods.

- 2. Microsoft routing
- 3. Kubenet
- 4. Service endpoint

## QUESTION 2

Your company has recently migrated to Azure Active Directory. You have been told to join all users' devices to the domain, but limit the number of devices to 5 per user. What should you do?

1. Create a point-to-site VPN for all users
2. Add a VPN gateway to your network infrastructure
3. Go to the Licenses blade in Azure Active Directory
4. **Go to the Device Settings blade in Azure Active Directory**

*Within the Device Settings blade, you can set the maximum number of devices per user. If a user reaches this quota, they will not be able to join any more devices unless another one is removed.*

### QUESTION 3

You have 2 virtual networks named VNet1 and VNet2. VNet1 is located in the West US region, whereas VNet2 is located in the East US region. You need to configure a virtual machine that's located in VNet1 to also communicate with VMs in VNet2. From the choices available, how can you enable communication between resources in VNet1 and VNet2?

1. Migrate just the VM disks to VNet2
2. Migrate the network interface card (NIC), the network security group (NSG), and the VM disks to VNet2
3. Migrate the VNet1 VM to VNet2 and leave the other VM components on VNet1

#### 4. Configure a VNet-to-VNet VPN gateway connection to allow communication between VNets in different regions

VNet-to-VNet connections allow communication between virtual networks in different regions and from different subscriptions. Reference Documentation: [Configure a VNet-to-VNet VPN Gateway Connection by Using the Azure Portal](#).

## QUESTION 4

You have an Azure virtual machine running Windows Server 2016. You need to collect OS level metrics on this virtual machine, including Windows event logs and performance counters. Which of the following items do you need in order to collect this metrics data?

### 1. Guest-level monitoring

In order to install the Azure Performance Diagnostics VM Extension for Windows on an Azure VM, you must enable guest-level monitoring from the VM settings in the portal.

2. Log Analytics agent

### 3. Azure Performance Diagnostics VM Extension for Windows

Azure Performance Diagnostics VM Extension for Windows is an agent in Azure Monitor that collects monitoring data from the guest operating system and workloads of Azure virtual machines and other compute resources.

4. InfluxData Telegraf Agent

### 5. Storage account for diagnostics data

In order to enable guest-level monitoring, you need to create a storage account for storing the metrics data.

## QUESTION 5

You have an Azure subscription that contains the following virtual machine scale set named myScaleSet:

InstanceId	LatestModelApplied	Location	ModelDefinitionApplied	Name	ProvisioningState	ResourceGroup	VmId
-----							
-----							
0	True	southcentralus	VirtualMachineScaleSet	myScaleSet_0	Succeeded	testgroup	06717084-6e8e-43db-95d1-daf2e6d94c28
1	True	southcentralus	VirtualMachineScaleSet	myScaleSet_1	Succeeded	testgroup	d8adc5e0-d89f-4555-881f-4f08065eae0f
3	True	southcentralus	VirtualMachineScaleSet	myScaleSet_0	Succeeded	testgroup	123f54as-6e8e-43db-a54f-daf2e6dadf54
5	True	southcentralus	VirtualMachineScaleSet	myScaleSet_1	Succeeded	testgroup	ad58d9fg-d89f-4555-881f-4f08a4d5ae12

You need to remove instance ID 5 from the virtual machine scale set. Which of the following commands should you use?

1. `az scale set remove --instance-ids 3 --name myScaleSet_5 --resource-group testgroup`
2. `Remove-AzVmss -ResourceGroupName "testgroup" -VMScaleSetName "myScaleSet"`
3. `Remove-AzVmssVMDaDataDisk -VM $VirtualMachine -Lun 0`

**4. `az vmss deallocate --instance-ids 5 --name myScaleSet --resource-group testgroup`**

The `az vmss deallocate` command will deallocate and remove the VMs within a VMSS. [az vmss Commands](#)

## QUESTION 6

Which of the following load balancing configurations checks on the availability of virtual machines in the backend pool of a Basic Load Balancer?

**1. Health probe**

A health probe is utilized to check the availability of VMs in the backend pool to ensure they are healthy and can serve traffic distributed from the load balancer.

2. TCP reset

3. Session persistence

4. NAT rule

## QUESTION 7

You create an Azure storage account named consiliumstore with a publicly accessible container named container1. You upload a file to container1 named pic1.png. What will be the URL used in order to access this blob?

1. <https://portal.azure.com/consiliumstore.blob.core.windows.net/pic1.png>
2. <https://blob.core.windows.net/consiliumstore/container1/pic.png>
3. <https://pic1.consiliumstore.blob.core.windows.net>
4. <https://consiliumstore.blob.core.windows.net/container1/pic1.png>

By default, the URL of the blob will be the storage account name, followed by blob.core.windows.net, the container name, and then the name of the blob.

## QUESTION 8

You have an Azure subscription named Subscription1. You have created a web app named App1 in Subscription1 that is sourced from a Git repository named Git1. You need to ensure that every commit to the master branch in Git1 triggers a deployment to a test version of the application before releasing it to production. What are two changes that you must make to App1 to fulfill this requirement?

**1. Add a new deployment slot to App1 to release the test version of App1**

Deployment slots allow greater flexibility within app services, providing a built-in staging environment for your app and access to your application without deploying it to production.

**2. Create a build server with the master branch of Git1 as the trigger**

You have the option of creating a build server natively in App Services by selecting *Deployment Center* in the App1 blade. This will trigger a build every time a commit is made to the master branch of Git1.

3. Create a new web app and configure failover settings from test to production

4. Configure custom domains for test and production versions of App1



QUESTION 9

VM1 is a D-series Linux virtual machine in an availability set, which has availability across two fault domains and five update domains. VM1 experiences a hardware failure, but the memory is preserved and doesn't require a reboot. What will happen to the VM when this event occurs?

- 1. Since the memory is preserved, the VM will migrate to all new hardware, except for the memory component.
- 2. Azure will migrate VM1 from failing hardware to a healthy physical host and the VM will be paused for up to five seconds.  
Azure uses Live Migration technology to migrate virtual machines from the failing hardware to a healthy physical machine. Live Migration is a VM preserving operation that only pauses the virtual machine for a short time. Memory, open files, and network connections are maintained, but performance might be reduced before and/or after the event.
- 3. The VM will be decommissioned and a support ticket will be automatically generated. You will have to call support in order to retrieve the data from your VM.
- 4. Azure will keep the VM running on the same hardware because fault domains are in place for the VM.

## QUESTION 10

You work at the IT help desk for Consilium Corporation. You have been getting an influx of calls into the help desk about resetting users' passwords. They keep reporting that they can't seem to figure out how to reset their password in order to gain access to their Customer Relationship Management (CRM) software. What do you do?

1. Verify that self-service password reset is enabled in Azure Active Directory.

Self-service password reset is an optional feature in Azure Active Directory, which may not apply to all users in the organization.

2. Ensure that the users who are having problems are within the correct AD group.

Self-service password may not apply to those outside of a specific Active Directory group. Only users in the group may reset their own passwords.

3. Make sure you have Azure Active Directory Free.

4. Issue a document to inform users of password reset procedure.

If the Active Directory users are not authorized to reset their password, or the Active Directory environment is not suited for this functionality (e.g. licensing), the document in of itself may not help in this situation, but it is a good start.

Good communication is a good idea, but also make sure the users can use self-service in Azure Active Directory.

5. Make sure they have their verification device (mobile app or access to email).

*In order to reset their password, the user will have to verify their identity using a mobile phone, mobile app, office phone or email.*

## QUESTION 11

You have an Azure subscription named Subscription1. In Subscription1 you have two Azure VMs named VM1 and VM2, both running Windows Server 2016. VM1 is backed up using a Recovery Services vault, with a backup policy configured to produce a daily backup and keep that daily backup for 7 days. Also, a snapshot is kept for 2 days. VM1 is compromised by a virus that infects the entire system, including the files. You need to restore the files from yesterday's backup of VM1. What method can you use to restore the files to in the quickest manner?

1. Restore from VM2
2. Restore in-place
3. Create a new Azure VM and restore to it

**4. Restore the VM1 snapshot**

Using snapshots for VM backups, you speed up the recovery time considerably. The snapshots are stored with the disks in Azure, so the transfer speeds are optimal.

## QUESTION 12

Which of the following load balancing configurations can you utilize to ensure that the same virtual machine in the backend pool services the same client?

1. Health probe
2. Load balancing rule
3. NAT rule

### 4. Session persistence

Session persistence is the configuration that you set on your load balancers to ensure that the same virtual machine in the backend pool services the same client.

### QUESTION 13

You have a general-purpose v1 storage account named consiliumstore that has a private container named container2. You need to allow read access to the data inside container2, but only within a 14 day window. How do you accomplish this using the Azure portal?

**1. Create a shared access signature (SAS)**

A shared access signature (SAS) allows you to have granular control over your storage account, including access to only certain services (i.e. Azure Blobs) and permitting only read, write, delete, list, add, or create access.

**2. Create a stored access policy**

A stored access policy allows granular control over a single storage container using a shared access signature (SAS).

3. Upgrade the storage account to general-purpose v2

4. Create a service shared access signature (SAS)

## QUESTION 14

Your company has recently added a few new users to your Azure Active Directory. You have already added them to a security group, and now you have asked them to join their devices to the tenant. When they join their devices, you have to ensure they are prompted to use a mobile phone to verify their identity. What is the simplest way to configure this functionality?

1. Configure a point-to-site VPN

2. Enable conditional access

3. **Require multi-factor authentication to join devices**

This setting in Azure Active Directory will require multi-factor authentication for all devices under any conditions.

4. Sign up for Azure AD Premium

## QUESTION 15

You manage a virtual network named VNet1 that is hosted in the West US region. Two virtual machines named VM1 and VM2, both running Windows Server, are on VNet1. You need to monitor traffic between VM1 and VM2 for a period of five hours.

What solution could you use to meet these requirements?

### 1. Connection Monitor in Azure Network Watcher

The connection monitor capability in Azure Network Watcher monitors communication at a regular interval and informs you of reachability, latency, and network topology changes between the VM and the endpoint. This is the best solution for your use case of monitoring traffic between the two VMs.

2. Application Insights

3. Azure Monitor for VMs

4. Azure SQL Analytics

QUESTION 16

You have an Azure subscription that contains 3 virtual machines that run Windows Server 2016 and are configured as follows:

You create a public DNS zone named consilium.com and a private DNS zone named axiodata.com

In the settings for the private DNS zone, you create a virtual network link to VNET2 and enable auto registration. What will happen to VM2 when it starts up?

Name	PublicIP	PrivateIP	VNetName	DNSSuffix
VM1	65.74.185.47	192.1.0.4	VNET1	consilium.com
VM2	47.185.85.63	10.1.0.4	VNET2	axiodata.com
VM3	66.166.78.43	192.1.0.5	VNET1	consilium.com

- 1. A record for VM2 will be added to the axiodata.com DNS zone**
- Any existing virtual machines and any new VMs added to VNET2 will be auto registered and a record will be added in the axiodata.com DNS zone.
2. A record for VM2 will be added to both consilium.com and axiodata.com
3. A record for VM2 will be added to the consilium.com DNS zone
4. A record for VM2 will be added to the axiodata.com DNS zone only once you configure the DNS servers for VNET2



## QUESTION 17

You are backing up your virtual machines using Azure Backup. You have 3 resource groups: RG1, RG2, and RG3. Inside of each, you have 2 virtual machines. VM1 and VM2 are located in resource group RG1, and VM3 and VM4 are located in resource group RG2. VM1 and VM3 are located in the West US region, VM2 is located in the South Central US region, and VM4 is located in the East US region. Your Azure Recovery Services vault is located in the West US region and inside of resource group RG3. Which of the following virtual machines can you backup with your existing Recovery Services vault?

1. VM1 and VM4

### 2. VM1 and VM3

The virtual machines must exist within the same region as the Recovery Services vault in order to back them up.

3. VM1, VM2, VM3, and VM4

4. None of the VMs

## QUESTION 18

Your web application is hosted in a VNet on a virtual machine running UbuntuLTS and has a public IP address. The virtual machine has a default network security group (NSG) implemented on the network interface (NIC) level. No other NSGs exist in this VNet. However, you are unable to visit the web app hosted on your VM over HTTP. Why?

**1. You need to allow traffic inbound for port 80.**

You need to implement a security rule on the NSG that will allow traffic over port 80, which is for servicing HTTP traffic. You only need to create the inbound security rule because NSGs are stateful.

3. You need to allow traffic outbound for port 443.

4. You need to host the app using App Service.

5. You need to allow inbound for port 80 and allow outbound for the ephemeral ports.

## QUESTION 19

Your organization has several offices across the United States. It utilizes file servers to provide a shared endpoint for departments within the organization. The organization wants to migrate to the cloud. Which of the following Azure services would replace the on-premises file servers?

1. Azure File Sync

2. Azure Tables

### 3. Azure Files

Azure Files is used to replace on-premises file servers as it is a cloud-managed file share service. This is the service that you could utilize to replace the organization's on-premises file servers.

4. Azure Blob

## QUESTION 20

You have an on-premises file server named campusshare that you are extending using Azure File Sync. You have already created a sync group in Azure File Sync. What steps do you need to take to finish extending your on-premises file server with Azure File Sync?

### 1. Register the server

Registering the server is one of the steps for extending on-premises file servers using Azure File Sync.

2. Install Microsoft Monitoring agent

### 3. Create a server endpoint in your sync group

Creating a server endpoint in your sync group is a step for extending on-premises file servers using Azure File Sync.

### 4. Install Azure File Sync agent

Installing the Azure File Sync agent is one of the steps for extending on-premises file servers using Azure File Sync.

5. Create a Recovery Services vault

6. Enable replication

**QUESTION 21**

You have two virtual networks, VNet1 and VNet2. VNet 1 has an IP CIDR of 10.0.0.0/16, and VNet2 has an IP CIDR of 192.168.0.0/16. You want to be able to communicate between these virtual machines privately over the Microsoft backbone. Which of the following could you use to accomplish this without transitivity to other potentially peered networks?

- 1. Azure WAN
- 2. VPN gateway

**3. VNet peering**

VNet peering can be configured between these VNets with non-overlapping IP CIDRs. Once the peering connections are created on both sides of the peering, these VNets will be able to communicate privately without transitivity to potentially peered networks.

- 4. ExpressRoute

## QUESTION 22

You are currently using a load balanced availability set containing 2 virtual machines. These virtual machines are balanced behind a Basic SKU load balancer. You notice that these 2 virtual machines do not properly serve your workload during peak hours when traffic is way up. You need a solution that will allow you to add virtual machines on the fly when they are needed. Which of the following would provide the most effective solution?

1. Add another virtual machine into the availability set.

2. Add a virtual machine scale set to the backend pool.

**3. Create a scale set and use it to replace the backend pool.**

Using a scale set with a Basic SKU load balancer would properly support your traffic. You have to replace the backend pool because Basic SKU load balancers support backend pools with either VMs in a single availability set or a scale set.

4. Upgrade the Basic SKU load balancer to a Standard SKU.

### QUESTION 23

You are planning out the network design for a VNet where you will be hosting an application with a database layer, logic layer, and a web frontend. How many subnets should you create within this VNet?

1. 1

2. 4

**3. 3**

When planning out a network, you should typically follow an N-tier architecture, which means that you create a subnet for each layer of your application. In this case, since you have 3 layers — the database layer, the logic layer, and the web-front end — you would have 3 subnets.

4. 2

## QUESTION 24

As an organization, you want to provide users' access to the storage accounts in Azure so that they will be able to work with data stored in the Blob service. These users are non-technical and prefer a GUI interface. You generate SAS tokens for these users that provide limited access to the storage blobs. What storage utility can these users utilize to access the blobs?

1. Export jobs
2. Import jobs

### 3. Storage Explorer

Storage Explorer is a storage utility that provides a GUI experience.

4. AzCopy



## QUESTION 25

You have created an application named ContainerApp1 that is to be run on Linux containers. You've created an Azure container instance with an FQDN, but you notice that when the container restarts, all application data is lost. What is the best solution to preserve the data associated with your application?

### 1. Mount an Azure file share as a volume in Azure Container Instances

Azure Container Instances can mount an Azure file share created with Azure Files. Azure Files offers fully managed file shares hosted in Azure Storage that are accessible via Server Message Block (SMB) protocol. Using an Azure file share with Azure Container Instances provides file-sharing features similar to using an Azure file share with Azure virtual machines.

2. Create a storage account and share the SAS with the application
3. Create a public blob storage container and share the URI with the application
4. Run the container on a VM, and use the managed disk attached to the VM

**QUESTION 26**

Your company wants to implement a load balancing solution in Azure that provides a 99.99% SLA, but it also wants to minimize costs. Which of the following in combination would provide the most appropriate, cost effective solution?

**1. Backend pool of 2 virtual machines**

A backend pool with 2 virtual machines, when implemented with a Standard Load Balancer, would provide the 99.99% SLA.

2. Basic Load Balancer

3. Backend pool of 1 virtual machine

**4. Standard Load Balancer**

Standard Load Balancers provide a 99.99% SLA, whereas Basic Load Balancers do not.

5. Standard Application Gateway

## QUESTION 27

You have a number of virtual machines and web applications running in your Azure environment. These Azure resources are critical for business operations, so you've locked the resources in order to prevent deletion. In addition, how can you alert on these actions in the portal, and notify your team via email and SMS when a user is trying to delete or create a new resource from within your Azure subscription?

1. Query administrative events and copy link to query

### 2. Create a new action group

An action group is a collection of notification preferences defined by the owner of an Azure subscription. Azure Monitor and Service Health alerts use action groups to notify users that an alert has been triggered.

3. Pin the activity log to your dashboard

### 4. Create a new alert rule

Alert rules specify the conditions for which the alert is triggered. Activity log alerts are the alerts that get activated when a new activity log event occurs that matches the conditions specified in the alert.

## QUESTION 28

You have a subscription named Subscription1. You would like to be alerted upon certain administrative events within Subscription1 to detect unauthorized access. Which of the following is the quickest method to set up these types of alerts?

**1. Monitor > Alerts > New Alert Rule**

Alerts can be created from within Azure Monitor.

2. Policy > Assignments > Assign Policy

3. Log Analytics Workspace > *myWorkspace* > Advanced Settings

4. Subscriptions > *mySubscription* > Activity Log > New Alert

## QUESTION 29

You have an Azure subscription named Subscription1. You would like to connect your on-premises environment to Subscription1. You have to meet three requirements from the business. The first requirement is that the connection from the on-premises office and Azure must be a private connection. No network traffic is allowed to go over the public internet. The second requirement is that all traffic from the on-premises office and Azure must happen at layer 3 (network layer). The third requirement is that this connection from on-premises to Azure must be redundant to minimize the opportunity for failure. What type of connection fulfills these three requirements?

1. Site-to-Site VPN

### 2. ExpressRoute

ExpressRoute lets you extend your on-premises networks into the Microsoft cloud over a private connection facilitated by a connectivity provider. ExpressRoute connections do not go over the public internet. An ExpressRoute connection is a layer 3 connection between your on-premises network and Azure through a connectivity provider (e.g. Verizon). The customer and the service provider segments of ExpressRoute connectivity need architected for high availability.

3. Virtual WAN

4. ExpressRoute with Premium add-on

**QUESTION 30**

In regards to the governance capabilities of Azure, which of the following statements is true?

1. Resource groups can be nested in one another

**2. Resource locks are inherited from parent scopes**

Resource locks are inherited from the parent scope. For example, if you lock a resource group, then all resources within that resource group are also affected by this lock.

3. Resources inherit the tags of their resource group

4. Resources can be moved without validation

### QUESTION 31

In your organization, you have a subscription with 3 resource groups. You are trying to track the costs of resources by department, but every department uses resources from each resource group. How can you best enable the organization to track the costs of its resources?

- 1. Create resource locks for each resource
- 2. Assign tags to each resource group

**3. Assign tags to each resource**

Assigning tags to each resource in the subscriptions allows you to filter when performing cost analysis.

- 4. Filter cost analysis by resource groups

## QUESTION 32

You are using an Azure Resource Manager (ARM) template to deploy a VM. Check the template in **question32.json** file.

Reviewing the template, what would we modify to ensure that we launch the VM using an Ubuntu 18.04 LTS image version rather than 16.04.0-LTS?

**1. Replace the variable value for OSVersion with 18.04-LTS**

By modifying the OSVersion variable, we can specify the ubuntu OS version that is being passed into the resources section of this template.

2. Removing the variables section

3. By changing the default value of our ubuntuOSVersion parameter to 18.04-LTS

4. Select the OS version during deployment of this template



### QUESTION 33

You are using an Azure Resource Manager (ARM) template to deploy a VM. Check the template in the **question33.json** file.

After reviewing the template, what can we determine as the default version of the VM?

1. Ubuntu 16.04.0-LTS

2. Ubuntu 18.04 LTS

This is the default image version that is specified in the parameters section of the template. While it is an allowed value, it is also our default value for this parameter option in the ARM template.

3. Ubuntu 14.04.5-LTS

4. Ubuntu 12.04.5-LTS

### QUESTION 34

You've created a Dockerfile that contains the necessary steps to build an image that you plan to use for your application running as a Web App in App Services named APP1. You have created an Azure Container Registry, which is where you plan to store your images to be used for APP1. What should your next step be?

1. Run the docker login command

**2. Run the az acr build command**

The az acr build command will build and push your image to an Azure Container Registry all in one command. You should use this if you don't have Docker installed, and/or if you don't have the compute resources to build images on your local machine.

3. Run the docker push command

4. Create the App Service Plan

## QUESTION 35

You are responsible for 3 virtual networks named Spoke1, Spoke2, and Hub. You need to ensure that resources within Spoke1 can communicate with resources in Spoke2. You also need to ensure that all communication from Spoke1 to Spoke2 is private. Due to company policy, you cannot connect Spoke1 to Spoke2 directly. What can you do to reach this requirements?

1. Create three virtual network gateways to enable connections between Spoke1 and Spoke2 through the Hub VNet.
2. Create a private endpoint from the Hub VNet to enable traffic between Spoke1 to Spoke2.

**3. Create a peering between each Spoke VNet and the Hub VNet. Deploy a network virtual appliance in the Hub VNet and configure routes to forward traffic between Spoke1 and Spoke2 through the network virtual appliance.**

Virtual network peering is a non-transitive relationship between two virtual networks, so the connection is private. The network virtual appliance deployed in the Hub VNet can forward traffic from Spoke1 to Spoke2 through the Hub VNet. [Create a peering](#).

4. Create a firewall rule to allow traffic from Spoke1 to Spoke2 using the Hub VNet.

## QUESTION 36

You have two subscriptions, one named Subscription1 and the other named Subscription2. Both subscriptions are located within the same tenant. You have one Azure virtual machine located within Subscription1 and another Azure virtual machine within Subscription2, and you'd like to view CPU utilization metrics on both virtual machines. How can you achieve this while maintaining the minimum number of Azure resources and minimizing cost?

### 1. Turn on VM insights in Azure Monitor

VM insights integration with Azure Monitor Logs delivers powerful aggregation and filtering, allowing Azure Monitor to analyze VM data trends over time. You can view this data in a single VM from the virtual machine directly, or you can use Azure Monitor to deliver an aggregated view of your VMs where the view supports Azure resource-context or workspace-context modes.

2. Install the Log Analytics agent on the VMs

### 3. Create a Log Analytics workspace for both VMs

You can view metrics data (such as CPU utilization percentage) over time by sending your metrics data to a Log Analytics workspace. This workspace can collect metrics data from multiple VMs, no matter if they are located in the same or different subscriptions.

4. Enable guest-level monitoring on each VM

### QUESTION 37

You have an Azure subscription named Subscription1. In Subscription1, you have a web server that has the IP address 10.1.0.83 and a database server that has the IP address 10.1.0.142. Instead of remembering the IP addresses of the servers, you'd like to connect to these servers using a DNS name. With no DNS server currently, and without having to create a new DNS server, how can you access your database server from your web server by the DNS name db.yourcompany.com?

1. Use a public DNS zone
2. Promote the web server to a domain controller
3. Access the domain controller

#### **3. Use a private DNS zone**

A private DNS zone is an easy way to register servers with a DNS name versus having to access them by their IP address.

### QUESTION 38

You are implementing a load balancing solution for your application, and you want it to provide multisite capabilities. Which of the following will provide you with the appropriate solution?

1. App Service

2. Azure WAN

**3. Application Gateway**

Application Gateway is used to balance traffic between backend pools, and it provides multisite load balancing capabilities.

4. Azure Load Balancer

### QUESTION 39

You have decided that you want to create 2 AKS clusters. Each of the clusters has different networking requirements. ClusterAlpha needs each pod to have a private IP address. ClusterBravo requires that each node has a private IP address. Which of the following options would you select for a networking configuration that satisfies the requirements of ClusterBravo?

1. Container Network Interface
2. Azure Private Link

#### 3. Kubenet

Kubenet can provide a private IP for each node in a cluster, which will meet the requirements for the ClusterBravo cluster.

4. Private endpoint

## QUESTION 40

You have a standard load balancer that directs traffic from port 80 externally to 3 different virtual machines. You need to direct all incoming TCP traffic on port 5000 to port 22 internally for connecting to Linux VMs. What do you need in order to connect to the VM via SSH?

1. A public IP address for all 3 VMs

**2. A Network Address Translation (NAT) rule**

NAT rules work alongside NSG rules to provide a connection to a VM that's behind a load balancer.

3. A route table with at least one rule

**4. A network security group (NSG)**

The NSG rules work alongside the NAT rules to provide a connection to a VM that's behind a load balancer.



## QUESTION 41

You have an Azure subscription with a virtual machine named VM1. You are using a Recovery Services vault (RSV) to back up VM1 with soft delete enabled. The backup policy is set to back up daily at 11 PM UTC, retain an instant recovery snapshot for 2 days, and retain the daily backup point for 14 days. After the initial backup of VM1, you are instructed to delete the vault and all of the backup data. What should you do?

1. Wait 15 days before deleting the data
2. Delete the backup policy
3. Wait 14 days before deleting the data
4. Delete Backup Jobs Workload

### 5. Turn off soft delete in the vault security settings

When you stop the backup and delete the backup data, because you have soft delete enabled, the backup data is still kept. Permanently deleting the soft-deleted backup items would remove the backup data indefinitely.

### 5. Stop the backup of VM1 and delete backup data

If you stop the backup of VM1 and choose **Delete backup data** from the dropdown menu, this will stop future backups and delete the existing backup data.

## QUESTION 42

VM1 is located in the East US region. You have added a Premium SSD data disk to VM1, but the IOPS are not satisfying the needs of your application. How can you change the speed of the disk?

1. Create a new disk and migrate the data
2. Export the disk and convert to VHD

### 3. Shut down (deallocate) the VM

Disks can be resized only when they are unattached or the owner VM is deallocated.

### 4. Select the disk configuration and increase the size

Premium disk performance increases based on the size of the disk, while Standard disks have consistent performance for all disk sizes. Disks can be resized only when they are unattached or the owner VM is deallocated.

### QUESTION 43

The senior manager of your IT department has asked that you use Azure Storage to replace your on-premises storage solution. You currently store your data redundantly across 3 different host machines in an on-premises data center. You are in the process of creating the storage account and must select a redundancy option. Which of the following options would you select to match your current on-premises infrastructure redundancy levels?

#### 1. Locally redundant storage

Locally redundant storage provide you with data redundancy storing your data as three copies across 3 host machines within a physical location. LRS would be the option to select to match your current on-premises environment.

2. Geo-redundant

3. Geo-zone-redundant storage

4. Zone-redundant storage

QUESTION 44

You have an application that runs on instances in a virtual machine scale set (VMSS). The number of instances in the VMSS is at 3 starting on Monday. The minimum number of instances is 1, and the maximum is 5 instances. There are 2 scaling rules for this VMSS:

Rule	Condition.	Action
Rule1	CPU > 75%	+1 instance
Rule2	CPU < 25%	-1 instance

Based on the rules above and the chart below, on Wednesday evening how many instances will there be in the VMSS?

CPU%	Time(UTC)	Day
75	12:01	Tuesday
20	13:36	Tuesday
85	12:10	Wednesday
20	19:07	Thursday

1. **3 instance**  
on Monday. Based on the chart, we will still be at 3 instances on Tuesday at 12:01 because we have not met a condition for any scaling actions to take place. Then at 13:36 on Tuesday, we will scale down an instance due to the CPU% being below 25%, bringing us down to 2 instances. Then on Wednesday at 12:10, we will scale out by 1 instance because our CPU% has gone above 75%, which brings us back up to 3 instances on Wednesday.

- 2. 4 instances
- 3. 5 instances
- 4. 2 instances

## QUESTION 45

You have a subscription named Subscription1. Subscription1 has two virtual networks named VNet1 and VNet2 in two different resource groups. VNet1 is located in the West US region and VNet2 is located in the East US region. You need to apply a network security group named NSG1 to a subnet in VNet1. NSG1 is located in the East US region. How do you attach NSG1 to the subnet in VNet1?

1. Select the subnet and choose NSG1 from the network security group drop-down

**2. You can not attach NSG1 to the subnet in VNet1. Create a new network security group in the West US region**

In order for you to associate a network security group to a subnet, both the virtual network and the network security group must be in the same region.

3. Move VNet1 into a resource group located in the East US region

4. Move NSG1 into the VNet1 resource group

## QUESTION 46

You have two subscriptions named Subscription1 and Subscription2. You are logged into Azure using Azure PowerShell from Computer1. How can you identify which subscription you are currently viewing and then switch from one subscription to the other for the current session at Computer1?

### 1. Get-AzContext

In Az PowerShell 3.7.0, 'Get-AzContext' gets the metadata used to authenticate Azure Resource Manager requests.

### 2. AzShow-Context

### 3. Select-AzContext

### 4. Set-AzContext -SubscriptionName

In Az PowerShell 3.7.0, Set-AzContext sets the tenant, subscription, and environment for cmdlets to use in the current session.

## QUESTION 47

You are an Azure Administrator for the organization IdentityCraftaculous. There are multiple subscriptions in the organization. Recently, it was inferred that the organization is spending too much money on VMs, specifically because of G series instances that are being provisioned. To stop this from happening, you make a policy definition as mentioned in the **question47.json** file.

Now all you have to do is decide how to assign this policy. You want to stop G series instance from being provisioned across the organization. Which of the following design strategies helps ensure the most effective implementation of this policy, while having the least administrative overhead?

- 1.Assign this policy to all of the resource groups throughout the organization.
- 2.Create management groups and organize subscriptions into them, then assign the policy to all management groups under the root management group.
- 3.Use management groups to organize subscriptions into logical management group containers, where you can then assign the policy to all subscriptions owned by the organization.
4. Use management groups to organize subscriptions into logical management group containers, where you can then simply assign the policy to the root management group.

You can accomplish your goal by assigning this policy at the root management group level. From the root management group, all other subscriptions/management groups under the root will inherit this policy.

**QUESTION 48**

You have an on-premises environment, as well as your Azure environment with a subscription named Subscription1. Subscription1 has a virtual network named VNET1 that you need to connect to the on-premises network securely using an ExpressRoute link and Site-to-Site VPN. What resources do you need in order to establish the connection while minimizing cost?

**1. A network virtual appliance**

VPN tunnels over Microsoft peering can be terminated either using VPN gateway or using an appropriate network virtual appliance (NVA) available through Azure Marketplace. While both will accomplish the goal of establishing a connection between environments, an NVA will incur less cost than a VPN gateway.

2. A VPN gateway

**3. A route table**

A route table is required to specify the next hop for traffic coming and going from the on-premises network.

4. No resources are needed, as ExpressRoute is encrypted by default



## QUESTION 49

You are the Azure Administrator working for CloudMotive Inc. and you have been tasked with ensuring proper access permissions for all Azure AD users. Adam is the Solutions Architect for the Marketing team. All of the resources for the Marketing team are within the MarketingRG resource group. You need to provide access for Adam to manage all resources at the MarketingRG scope. Which of the following built-in roles would you assign to Adam to provide access to manage all resources in the MarketingRG resource group without providing Adam the ability to create role assignments for MarketingRG?

### 1. Contributor

The Contributor role would be the best solution for providing Adam with the permissions to manage all resources in the MarketingRG resource group, without giving Adam the permissions to make role assignments.

2. Owner

3. Resource Group Manager

4. User Access Administrator

## QUESTION 50

You have a web application that serves video and images to those visiting the site. You start to notice that your web server is overloaded, and often crashes because the requests have consumed all of its resources. To combat this, you've added an additional web server, and you plan to load balance these servers by serving images from the first server only and serving video from the second server only. Which Azure resource can you implement that will properly load balance (at OSI layer 7) with URL-based routing and secure with SSL at the lowest cost?

1. Web Application Firewall

**2. Azure Application Gateway**

Azure Application Gateway operates at layer 7 (the application layer), and is a web traffic load balancer that enables you to manage traffic to your web applications. Application Gateway can make routing decisions based on URI path and secure with SSL.

3. Azure Front Door

4. Azure Load Balancer

## QUESTION 51

You have a network security group (NSG) that is associated with a network interface that is attached to an Azure virtual machine named VM1 running Windows Server 2019. VM1 is in subnet named subnet1, in a virtual network named VNet1. A different NSG is attached to subnet1, but you notice that there is an inbound rule to allow port 3389. When you try to connect to VM1, you cannot connect. You reviewed the NSG and the source IP address and the protocol are correct. Which action should you take according to best practices for NSGs in Azure?

1. The protocol on the NSG rule is set to UDP

**2. The NSG attached to the network interface needs to be removed**

Removing the NSG from the network interface would allow the VM to use the NSG associated with the subnet, which is best practice.

3. The source IP address on the NSG rule is incorrect

4. An inbound rule for the NSG attached to the network interface needs to be added

QUESTION 52

You have created a new Azure virtual machine in a subnet named Subnet1 with an attached network interface card named NIC1. The NIC1, attached to Subnet1, has the following effective routes:

Source	State	Address Prefix	Next Hop
Default	Active	10.1.0.0/16	Virtual Network
Default	Invalid	0.0.0.0/0	Internet
Default	Active	10.0.0.0/8	None
Default	Active	100.64.0.0/10	None
Default	Active	192.168.0.0/16	None
Default	Active	25.33.80.0/20	None
Default	Active	25.41.3.0/25	None
User	Active	0.0.0.0/0	None

What will happen when the virtual machine tries to communicate with a VM on a different network?

1. Traffic will be dropped and no connection will be established

The user-defined route with a Next Hop type of None in the table will override the default route, causing traffic to be directed to nowhere and the connection to be dropped.

- 2. Traffic will be forced internally
- 3. Traffic will be sent successfully
- 4. Traffic will be forced out to the internet

### QUESTION 53

Your on-premises network consists of two servers named Serve1 and Serve2, both running Windows Server 2019 Datacenter. On Serve1, a file exists named file1.txt. On Serve2, a file exists also named file1.txt, but its contents are different. You set up a file sync service in Azure to sync the folders that contain both versions of file1.txt to a cloud endpoint. First, you setup Serve1 as a server endpoint, then a few hours later, Serve2. What will happen to file1.txt?

1. file1.txt on Serve1 will be moved to another folder
2. file1.txt on Serve1 will be renamed file1-old.txt
3. file1.txt will be overwritten as soon as the Serve2 endpoint is added

**4. file1.txt from Serve1 will be renamed file1-Serve1.txt**

When two server endpoints contain the same file name, the contents of both files are kept, the one that's synced first will be renamed to {file-name}-{server-name}.{file-extension}.

## QUESTION 54

You have an Azure subscription that contains the following unused resources:

- Network interface (nic0)
- Static public IP (pip1)
- Standard load balancer (lb1) with 5 rules configured
- Virtual network (VNet2) = 10.1.0.0/16
- Stopped (deallocated) virtual machine (VM3)

Which of these unused resources should you remove to lower cost?

2. Virtual network (VNet2)

### 2. Standard load balancer (lb1)

The pricing for a Standard load balancer is based on the number of rules configured (load balancer rules and NAT rules) and data processed. However, there is no hourly charge for the Standard load balancer itself when no rules are configured. Since this load balancer contains rules, it should be removed to save money. Reference Documentation: [Pricing Virtual Machine IP Address Options](#)

### 3. Static public IP (pip1)

There is a charge for static public IP addresses irrespective of the associated resource (unless it is part of the first five static ones in the region), so this resource should be removed. Reference Documentation: [Pricing Virtual Machine IP Address Options](#)

Stopped (deallocated) virtual machine (VM3)

4. Network interface (nic0)

## QUESTION 55

You have two subscriptions named Subscription1 and Subscription2. You are currently managing resources in Subscription1 from Computer1, which has the Azure CLI installed. You need to switch to Subscription2. Which command should you run?

1. `az set account --subscription "Subscription2"`

2. `az subscription set "Subscription2"`

3. `az account set --subscription "Subscription2"`

You are accessing Azure from Computer1 with the Azure CLI installed; therefore, this command is the correct command.

4. `Select-AzureSubscription -SubscriptionName "Subscription2"`

## QUESTION 56

You have two Azure virtual machines named VM1 and VM2. VM1 is using the Red Hat Enterprise Linux 8.1 (LVM) operating system and is located in VNet1, within subnet1. VM2 is using the Windows Server 2019 operating system and is located in VNet1, within subnet2. VNet1 has custom DNS configured, pointing to a DNS server with the IP address 172.168.0.6. VM2 has 10.0.1.15 configured as the DNS server on its network interface. Which DNS server will VM2 use for DNS queries?

1. 10.0.1.15 for primary, 172.168.0.6 as secondary
2. 8.8.8.8
3. 172.168.0.6

### 4. 10.0.1.15

Since the network interface attached to VM2 is assigned to a specific DNS server, it takes precedence over the DNS configured on the VNet.



## QUESTION 57

You have an Azure subscription named Subscription1. In Subscription1, you have an Azure virtual machine named VM1, which uses the "Standard\_A2\_v2" size. Attached to VM1 are two network interface cards. You require a third network interface card with a network bandwidth above 1000 Mbps for your storage area network. What should you do?

1. Create a new subnet with a sufficient number of available IP addresses

**2. Change the VM SKU to Standard\_A4 or larger**

The larger SKUs for Azure virtual machines allow for an increased number of NICs. [Av2-series](#).

3. Create an additional VM in the same subnet and connect to VM1 over the LAN

4. Create a new storage account to store data for VM1

## QUESTION 58

You are using Azure VMs to host a critical user-facing application. You want to ensure that you have a backup solution prepared for the VM. Which of the following steps would you take first in setting up a backup solution?

1. Configure a recovery plan

**2. Create a Recovery Services vault**

The very first step in setting up a backup recovery solution is creating Recovery Services vault.

3. Create a backup policy

4. Configure Azure Backup

## QUESTION 59

You have a resource group named RG1 and you plan to move a virtual machine to another subscription where resource group RG2 is located. You attempt to move this virtual machine, but find that you are unable to move the virtual machine when validating the move. What is the reason for this?

1. Virtual machines cannot be moved across resource groups inside of Azure.

**2. Virtual machines cannot be moved across subscriptions without also moving all the VM's dependent resources.**

In order to move virtual machines across subscriptions, you must move all of the associated networking resources that are part of the same virtual network.

3. You cannot move virtual machines, you must recreate the virtual machine in the destination subscription.

4. Moving operations do not support moving virtual machines across subscriptions inside Azure.

## QUESTION 60

You want to provide users within your tenant the ability to register their devices with Azure AD, but you don't want to allow all users to register devices. What can you do to control this?

**1. Use security groups and allow a select group to register devices.**

You can use groups to provide specific users the ability to register their devices with Azure AD.

- 2. Use select administrative units to register devices.
- 3. Require multi-factor authentication for registering devices.
- 4. It is not possible to restrict which users can register devices.