

## AZ-104 Microsoft Azure Administrator 475Q

### Question #1 Topic 1

Your company has several departments. Each department has a number of virtual machines (VMs). The company has an Azure subscription that contains a resource group named RG1.

All VMs are located in RG1.

You want to associate each VM with its respective department. What should you do?

- A. Create Azure Management Groups for each department.
- B. Create a resource group for each department.
- C. Assign tags to the virtual machines.
- D. Modify the settings of the virtual machines.

**Correct Answer: C**

Reference:

<https://docs.microsoft.com/en-us/azure/azure-resource-manager/resource-group-using-tags>

### Question #2 Topic 1

Note: The question is included in a number of questions that depicts the identical set-up. However, every question has a distinctive result. Establish if the solution satisfies the requirements.

Your company has an Azure Active Directory (Azure AD) subscription.

You want to implement an Azure AD conditional access policy.

The policy must be configured to require members of the Global Administrators group to use MultiFactor Authentication and an Azure AD-joined device when they connect to Azure AD from untrusted locations.

Solution: You access the multi-factor authentication page to alter the user settings. Does the solution meet the goal?

- A. Yes
- B. No

You access the Azure portal to alter the grant control of the Azure AD conditional access policy.

**Correct Answer: B**

**Question #3Topic 1**

Note: The question is included in a number of questions that depicts the identical set-up. However, every question has a distinctive result. Establish if the solution satisfies the requirements.

Your company has an Azure Active Directory (Azure AD) subscription.

You want to implement an Azure AD conditional access policy.

The policy must be configured to require members of the Global Administrators group to use MultiFactor Authentication and an Azure AD-joined device when they connect to Azure AD from untrusted locations.

Solution: You access the Azure portal to alter the session control of the Azure AD conditional access policy.

Does the solution meet the goal?

- A. Yes
- B. No

**Correct Answer: B**

**Question #4Topic 1**

Note: The question is included in a number of questions that depicts the identical set-up. However, every question has a distinctive result. Establish if the solution satisfies the requirements.

Your company has an Azure Active Directory (Azure AD) subscription.

You want to implement an Azure AD conditional access policy.

The policy must be configured to require members of the Global Administrators group to use MultiFactor Authentication and an Azure AD-joined device when they connect to Azure AD from untrusted locations.

Solution: You access the Azure portal to alter the grant control of the Azure AD conditional access policy.

Does the solution meet the goal? ›

- A. Yes
- B. No

**Correct Answer: A**

**Question #5Topic 1**

You are planning to deploy an Ubuntu Server virtual machine to your company's Azure subscription. You are required to implement a custom deployment that includes adding a particular trusted root certification authority (CA).

Which of the following should you use to create the virtual machine?

- A. The New-AzureRmVm cmdlet.
- B. The New-AzVM cmdlet.
- C. The Create-AzVM cmdlet.
- D. The az vm create command.

**Correct Answer: D**

Once Cloud-init.txt has been created, you can deploy the VM with az vm create cmdlet, using the --custom-data parameter to provide the full path to the cloud-init.txt file.

Reference: <https://docs.microsoft.com/en-us/azure/virtual-machines/linux/tutorial-automate-vm-deployment>

#### Question #6Topic 1

Note: The question is included in a number of questions that depicts the identical set-up. However, every question has a distinctive result. Establish if the solution satisfies the requirements.

Your company makes use of Multi-Factor Authentication for when users are not in the office. The Per Authentication option has been configured as the usage model.

After the acquisition of a smaller business and the addition of the new staff to Azure Active Directory (Azure AD) obtains a different company and adding the new employees to Azure Active Directory (Azure AD), you are informed that these employees should also make use of Multi-Factor Authentication.

To achieve this, the Per Enabled User setting must be set for the usage model.

Solution: You reconfigure the existing usage model via the Azure portal. Does the solution meet the goal?

- A. Yes
- B. No

#### Correct Answer: B

Since it is not possible to change the usage model of an existing provider as it is right now, you have to create a new one and reactivate your existing server with activation credentials from the new provider.

Reference:

<https://365lab.net/2015/04/11/switch-usage-model-in-azure-multi-factor-authentication-server/>

#### Question #7Topic 1

Note: The question is included in a number of questions that depicts the identical set-up. However, every question has a distinctive result. Establish if the solution satisfies the requirements.

Your company's Azure solution makes use of Multi-Factor Authentication for when users are not in the office. The Per Authentication option has been configured as the usage model.

After the acquisition of a smaller business and the addition of the new staff to Azure Active Directory (Azure AD) obtains a different company and adding the new employees to Azure Active Directory (Azure AD), you are informed that these employees should also make use of Multi-Factor Authentication.

To achieve this, the Per Enabled User setting must be set for the usage model.

Solution: You reconfigure the existing usage model via the Azure CLI. Does the solution meet the goal?

- A. Yes
- B. No

#### Correct Answer: B

Since it is not possible to change the usage model of an existing provider as it is right now, you have to create a new one and reactivate your existing server with activation credentials from the new provider.

Reference:

<https://365lab.net/2015/04/11/switch-usage-model-in-azure-multi-factor-authentication-server/>

#### Question #8Topic 1

Note: The question is included in a number of questions that depicts the identical set-up. However, every question has a distinctive result. Establish if the solution satisfies the requirements.

Your company's Azure solution makes use of Multi-Factor Authentication for when users are not in the office. The Per Authentication option has been configured as the usage model.

After the acquisition of a smaller business and the addition of the new staff to Azure Active Directory (Azure AD) obtains a different company and adding the new employees to Azure Active Directory (Azure AD), you are informed that these employees should also make use of Multi-Factor Authentication.

To achieve this, the Per Enabled User setting must be set for the usage model.

Solution: You create a new Multi-Factor Authentication provider with a backup from the existing MultiFactor Authentication provider data. Does the solution meet the goal?

- A. Yes
- B. No

**Correct Answer:** *B*

Since it is not possible to change the usage model of an existing provider as it is right now, you have to create a new one and reactivate your existing server with activation credentials from the new provider.

Reference:

<https://365lab.net/2015/04/11/switch-usage-model-in-azure-multi-factor-authentication-server/>

**Question #9Topic 1**

Note: The question is included in a number of questions that depicts the identical set-up. However, every question has a distinctive result. Establish if the solution satisfies the requirements.

Your company has an Azure Active Directory (Azure AD) tenant named `weyland.com` that is configured for hybrid coexistence with the on-premises Active Directory domain.

You have a server named `DirSync1` that is configured as a DirSync server.

You create a new user account in the on-premise Active Directory. You now need to replicate the user information to Azure AD immediately.

Solution: You run the `Start-ADSyncSyncCycle -PolicyType Initial` PowerShell cmdlet. Does the solution meet the goal?

- A. Yes
- B. No

**Correct Answer:** *B* Reference:

<https://blog.kloud.com.au/2016/03/08/azure-ad-connect-manual-sync-cycle-with-powershell-startadsyncsynccycle/>

**Question #10Topic 1**

Note: The question is included in a number of questions that depicts the identical set-up. However, every question has a distinctive result. Establish if the solution satisfies the requirements.

Your company has an Azure Active Directory (Azure AD) tenant named `weyland.com` that is configured for hybrid coexistence with the on-premises Active Directory domain.

You have a server named `DirSync1` that is configured as a DirSync server.

You create a new user account in the on-premise Active Directory. You now need to replicate the user information to Azure AD immediately.

Solution: You use Active Directory Sites and Services to force replication of the Global Catalog on a domain controller.

Does the solution meet the goal?

- A. Yes
- B. No

**Correct Answer: B**

**Question #11Topic 1**

Note: The question is included in a number of questions that depicts the identical set-up. However, every question has a distinctive result. Establish if the solution satisfies the requirements.

Your company has an Azure Active Directory (Azure AD) tenant named `weyland.com` that is configured for hybrid coexistence with the on-premises Active Directory domain.

You have a server named `DirSync1` that is configured as a DirSync server.

You create a new user account in the on-premise Active Directory. You now need to replicate the user information to Azure AD immediately.

Solution: You restart the `NetLogon` service on a domain controller. Does the solution meet the goal?

- A. Yes
- B. No

**Correct Answer: B**

**Question #12Topic 1**

Your company has a Microsoft Azure subscription.

The company has datacenters in Los Angeles and New York.

You are configuring the two datacenters as geo-clustered sites for site resiliency.

You need to recommend an Azure storage redundancy option.

You have the following data storage requirements:

Data must be stored on multiple nodes.  
 Data must be stored on nodes in separate geographic locations.  
 Data can be read from the secondary location as well as from the primary location. Which of the following Azure stored redundancy options should you recommend?

- A. Geo-redundant storage
- B. Read-only geo-redundant storage
- C. Zone-redundant storage
- D. Locally redundant storage

**Correct Answer: B**

RA-GRS allows you to have higher read availability for your storage account by providing `read only` access to the data replicated to the secondary location. Once you enable this feature, the secondary location may be used to achieve higher availability in the event the data is not available in the primary region. This is an `opt-in` feature which requires the storage account be geo-replicated.

Reference:

<https://docs.microsoft.com/en-us/azure/storage/common/storage-redundancy>

**Question #13Topic 1**

Note: The question is included in a number of questions that depicts the identical set-up. However, every question has a distinctive result. Establish if the solution satisfies the requirements.

Your company has an azure subscription that includes a storage account, a resource group, a blob container and a file share.

A colleague named Jon Ross makes use of a solitary Azure Resource Manager (ARM) template to deploy a virtual machine and an additional Azure Storage account.

You want to review the ARM template that was used by Jon Ross.

Solution: You access the Virtual Machine blade. Does the solution meet the goal?

- A. Yes

**Correct Answer: B**

You should use the Resource Group blade Reference:

<https://docs.microsoft.com/en-us/azure/azure-resource-manager/resource-manager-export-template>

**Question #14Topic 1**

Note: The question is included in a number of questions that depicts the identical set-up. However, every question has a distinctive result. Establish if the solution satisfies the requirements.

Your company has an azure subscription that includes a storage account, a resource group, a blob container and a file share.

A colleague named Jon Ross makes use of a solitary Azure Resource Manager (ARM) template to deploy a virtual machine and an additional Azure Storage account.

You want to review the ARM template that was used by Jon Ross.

Solution: You access the Resource Group blade. Does the solution meet the goal?

- A. Yes
- B. No

**Correct Answer: A**

To view a template from deployment history:

1. Go to the resource group for your new resource group. Notice that the portal shows the result of the last deployment. Select this link.

The screenshot shows the Azure Resource Group Overview page. At the top, there's a search bar labeled 'Search (Ctrl+ /)' and a toolbar with 'Add', 'Columns', 'Delete', 'Refresh', and 'Move' buttons. Below the toolbar, there's a section titled 'Essentials' with a dropdown arrow. It displays the 'Subscription name (change)', 'Microsoft Azure Consumption', and 'Subscription ID'. To the right of this section, a red box highlights a 'Deployments' button with the text '1 Succeeded'. On the left side, there's a sidebar with three items: 'Overview' (which is selected and highlighted in blue), 'Activity log', and 'Access control (IAM)'. The main content area below the sidebar shows a table with deployment details, which is partially cut off at the bottom of the screenshot.

2. You see a history of deployments for the group. In your case, the portal probably lists only one deployment. Select this deployment.

The screenshot shows the Microsoft Azure Deployment blade. At the top, there are four buttons: Delete, Cancel, Redeploy, and View template. Below them is a search bar with the placeholder text "Search for deployments by name...". The main title is "Microsoft Azure << exportsite - Deployments >> Microsoft.WebSiteSQLDatabase". On the left, there's a sidebar with icons for different services: App Service, Functions, Logic Apps, Container Registry, Blob Storage, SQL Database, Key Vault, and App Configuration. The main content area displays a deployment named "Microsoft.WebSiteSQLDatabase13386b0-9908" with the status "Deployment". Below it, there are several details:

Summary	
DEPLOYMENT DATE	7/5/2017 4:01:15 PM
STATUS	Succeeded
DURATION	1 minute 30 seconds
RESOURCE GROUP	exportsite
RELATED	Events

The "View template" button at the top right of the deployment card is highlighted with a red box.

Reference:

<https://docs.microsoft.com/en-us/azure/azure-resource-manager/resource-manager-export-template>

Question #15 Topic 1

Note: The question is included in a number of questions that depicts the identical set-up. However, every question has a distinctive result. Establish if the solution satisfies the requirements.

Your company has an azure subscription that includes a storage account, a resource group, a blob container and a file share.

A colleague named Jon Ross makes use of a solitary Azure Resource Manager (ARM) template to deploy a virtual machine and an additional Azure Storage account.

You want to review the ARM template that was used by Jon Ross.

Solution: You access the Container blade. Does the solution meet the goal?

- A. Yes
- B. No

**Correct Answer:** B

You should use the Resource Group blade Reference:

<https://docs.microsoft.com/en-us/azure/azure-resource-manager/resource-manager-export-template>

**Question #16Topic 1**

Your company has three virtual machines (VMs) that are included in an availability set.

You try to resize one of the VMs, which returns an allocation failure message.

It is imperative that the VM is resized.

Which of the following actions should you take?

- A. You should only stop one of the VMs.
- B. You should stop two of the VMs.
- C. You should stop all three VMs.
- D. You should remove the necessary VM from the availability set.

**Correct Answer:** C

If the VM you wish to resize is part of an availability set, then you must stop all VMs in the availability set before changing the size of any VM in the availability set.

The reason all VMs in the availability set must be stopped before performing the resize operation to a size that requires different hardware is that all running VMs in the availability set must be using the same physical hardware cluster. Therefore, if a change of physical hardware cluster is required to change the VM size then all VMs must be first stopped and then restarted one-by-one to a different physical hardware clusters.

Reference:

<https://azure.microsoft.com/es-es/blog/resize-virtual-machines/>

**Question #17Topic 1**

You have an Azure virtual machine (VM) that has a single data disk. You have been tasked with attaching this data disk to another Azure VM.

You need to make sure that your strategy allows for the virtual machines to be offline for the least amount of time possible.

Which of the following is the action you should take FIRST?

- A. Stop the VM that includes the data disk.
- B. Stop the VM that the data disk must be attached to.
- C. Detach the data disk.
- D. Delete the VM that includes the data disk.

**Correct Answer:** C Reference:

<https://docs.microsoft.com/>

en-us/azure/virtual-machines/windows/detach-disk  
<https://docs.microsoft.com/en-us/azure/lab-services/devtest-lab-attach-detach-data-disk>

**Question #18Topic 1**

Your company has an Azure subscription.

You need to deploy a number of Azure virtual machines (VMs) using Azure Resource Manager (ARM) templates. You have been informed that the VMs will be included in a single availability set.

You are required to make sure that the ARM template you configure allows for as many VMs as possible to remain accessible in the event of fabric failure or maintenance.

Which of the following is the value that you should configure for the platformFaultDomainCount property?

- A. 10
- B. 30
- C. Min Value
- D. Max Value

**Correct Answer: D**

The number of fault domains for managed availability sets varies by region - either two or three per region. Reference:

<https://docs.microsoft.com/en-us/azure/virtual-machines/windows/manage-availability>

**Question #19Topic 1**

Your company has an Azure subscription.

You need to deploy a number of Azure virtual machines (VMs) using Azure Resource Manager (ARM) templates. You have been informed that the VMs will be included in a single availability set.

You are required to make sure that the ARM template you configure allows for as many VMs as possible to remain accessible in the event of fabric failure or maintenance.

Which of the following is the value that you should configure for the platformUpdateDomainCount property?

- A. 10
- B. 20
- C. 30
- D. 40

**Correct Answer: B**

Each virtual machine in your availability set is assigned an update domain and a fault domain by the underlying Azure platform. For a given availability set, five non-user-configurable update domains are assigned by default (Resource Manager deployments can then be increased to provide up to 20 update domains) to indicate groups of virtual machines and underlying physical hardware that can be rebooted at the same time.

Reference:

<https://docs.microsoft.com/en-us/azure/virtual-machines/availability-set-overview>

Question #20 *Topic 1 DRAG*

DROP -

You have downloaded an Azure Resource Manager (ARM) template to deploy numerous virtual machines (VMs). The ARM template is based on a current VM, but must be adapted to reference an administrative password.

You need to make sure that the password cannot be stored in plain text.

You are preparing to create the necessary components to achieve your goal.

Which of the following should you create to achieve your goal? Answer by dragging the correct option from the list to the answer area.

Select and Place:

## Options

## Answer

An Azure Key Vault

An Azure Storage account

Azure Active Directory (AD)  
Identity Protection

An access policy

An Azure policy

A backup policy

**Correct**

**Answer:**

# Options

# Answer

An Azure Key Vault

An Azure Storage account

Azure Active Directory (AD)  
Identity Protection

An access policy

An Azure policy

A backup policy

An Azure Key Vault

An access policy

You can use a template that allows you to deploy a simple Windows VM by retrieving the password that is stored in a Key Vault. Therefore, the password is never put in plain text in the template parameter file.

Question #21 Topic 1

Your company has an Azure Active Directory (Azure AD) tenant that is configured for hybrid coexistence with the on-premises Active Directory domain.

The on-premise virtual environment consists of virtual machines (VMs) running on Windows Server 2012 R2 Hyper-V host servers.

You have created some PowerShell scripts to automate the configuration of newly created VMs. You plan to create several new VMs.

You need a solution that ensures the scripts are run on the new VMs. Which of the following is the best solution?

- A. Configure a SetupComplete.cmd batch file in the %windir%\setup\scripts directory.
- B. Configure a Group Policy Object (GPO) to run the scripts as logon scripts.
- C. Configure a Group Policy Object (GPO) to run the scripts as startup scripts.
- D. Place the scripts in a new virtual hard disk (VHD).

**Correct Answer: A**

After you deploy a Virtual Machine you typically need to make some changes before it's ready to use.

This is something you can do manually or you could use Remote PowerShell to automate the configuration of your VM after deployment for example. But now there's a third alternative available allowing you customize your VM: the CustomScriptExtension. This CustomScript extension is executed by the VM Agent and it's very straightforward: you specify which files it needs to download from your storage account and which file it needs to execute. You can even specify arguments that need to be passed to the script. The only requirement is that you execute a .ps1 file.

Reference: <https://docs.microsoft.com/en-us/windows-hardware/manufacture/desktop/add-a-custom-script-to-windows-setup> <https://azure.microsoft.com/en-us/blog/automating-vm-customization-tasks-usingcustom-script-extension/>

#### Question #22 *Topic 1*

Your company has an Azure Active Directory (Azure AD) tenant that is configured for hybrid coexistence with the on-premises Active Directory domain.

You plan to deploy several new virtual machines (VMs) in Azure. The VMs will have the same operating system and custom software requirements.

You configure a reference VM in the on-premise virtual environment. You then generalize the VM to create an image.

You need to upload the image to Azure to ensure that it is available for selection when you create the new Azure VMs.

Which PowerShell cmdlets should you use?

- A. Add-AzVM
- B. Add-AzVhd
- C. Add-AzImage
- D. Add-AzImageDataDisk

#### **Correct Answer: B**

The Add-AzVhd cmdlet uploads on-premises virtual hard disks, in .vhd file format, to a blob storage account as fixed virtual hard disks.

Reference:

<https://docs.microsoft.com/en-us/azure/virtual-machines/windows/upload-generalized-managed>

#### Question #23 *Topic 1 DRAG*

DROP -

Your company has an Azure subscription that includes a number of Azure virtual machines (VMs), which are all part of the same virtual network.

Your company also has an on-premises Hyper-V server that hosts a VM, named VM1, which must be replicated to Azure.

Which of the following objects that must be created to achieve this goal? Answer by dragging the correct option from the list to the answer area.

Select and Place:



## Options

## Answer

Hyper-V site

Storage account

Azure Recovery  
Services Vault

Azure Traffic  
Manager instance

Replication policy

Endpoint

Correct

Answer:



# Options

# Answer

Hyper-V site	Hyper-V site
Storage account	Azure Recovery Services Vault
Azure Recovery Services Vault	Replication policy
Azure Traffic Manager instance	
Replication policy	
Endpoint	

## Question #24 Topic 1

Note: The question is included in a number of questions that depicts the identical set-up. However, every question has a distinctive result. Establish if the solution satisfies the requirements.

Your company's Azure subscription includes two Azure networks named VirtualNetworkA and VirtualNetworkB.

VirtualNetworkA includes a VPN gateway that is configured to make use of static routing. Also, a site-to-site VPN connection exists between your company's on-premises network and VirtualNetworkA. You have configured a point-to-site VPN connection to VirtualNetworkA from a workstation running Windows 10. After configuring virtual network peering between

VirtualNetworkA and VirtualNetworkB, you confirm that you are able to access VirtualNetworkB from the company's on-premises network. However, you find that you cannot establish a connection to VirtualNetworkB from the Windows 10 workstation.

You have to make sure that a connection to VirtualNetworkB can be established from the Windows 10 workstation.

Solution: You choose the Allow gateway transit setting on VirtualNetworkA. Does the solution meet the goal?

- A. Yes
- B. No

**Correct Answer: B**

Reference:

<https://docs.microsoft.com/en-us/azure/vpn-gateway/vpn-gateway-about-point-to-site-routing>

Question #25Topic 1

Note: The question is included in a number of questions that depicts the identical set-up. However, every question has a distinctive result. Establish if the solution satisfies the requirements.

Your company's Azure subscription includes two Azure networks named VirtualNetworkA and VirtualNetworkB.

VirtualNetworkA includes a VPN gateway that is configured to make use of static routing. Also, a site-to-site VPN connection exists between your company's on-premises network and VirtualNetworkA. You have configured a point-to-site VPN connection to VirtualNetworkA from a workstation running Windows 10. After configuring virtual network peering between

VirtualNetworkA and VirtualNetworkB, you confirm that you are able to access VirtualNetworkB from the company's on-premises network. However, you find that you cannot establish a connection to VirtualNetworkB from the Windows 10 workstation.

You have to make sure that a connection to VirtualNetworkB can be established from the Windows 10 workstation.

Solution: You choose the Allow gateway transit setting on VirtualNetworkB. Does the solution meet the goal?

- A. Yes
- B. No

**Correct Answer: B**

Reference:

<https://docs.microsoft.com/en-us/azure/vpn-gateway/vpn-gateway-about-point-to-site-routing>

Question #26Topic 1

Note: The question is included in a number of questions that depicts the identical set-up. However, every question has a distinctive result. Establish if the solution satisfies the requirements.

Your company's Azure subscription includes two Azure networks named VirtualNetworkA and VirtualNetworkB.

VirtualNetworkA includes a VPN gateway that is configured to make use of static routing. Also, a site-to-site VPN connection exists between your company's on-premises network and VirtualNetworkA. You have configured a point-to-site VPN connection to VirtualNetworkA from a workstation running Windows 10. After configuring virtual network peering between

VirtualNetworkA and VirtualNetworkB, you confirm that you are able to access VirtualNetworkB from the company's on-premises network. However, you find that you cannot establish a connection to VirtualNetworkB from the Windows 10 workstation.

You have to make sure that a connection to VirtualNetworkB can be established from the Windows 10 workstation.

Solution: You download and re-install the VPN client configuration package on the Windows 10 workstation.

Does the solution meet the goal?

- A. Yes
- B. No

**Correct Answer: A**

Reference:

<https://docs.microsoft.com/en-us/azure/vpn-gateway/vpn-gateway-about-point-to-site-routing>

**Question #27Topic 1**

Your company has virtual machines (VMs) hosted in Microsoft Azure. The VMs are located in a single Azure virtual network named VNet1.

The company has users that work remotely. The remote workers require access to the VMs on VNet1. You need to provide access for the remote workers. What should you do?

- A. Configure a Site-to-Site (S2S) VPN.
- B. Configure a VNet-toVNet VPN.
- C. Configure a Point-to-Site (P2S) VPN.
- D. Configure DirectAccess on a Windows Server 2012 server VM.
- E. Configure a Multi-Site VPN

**Correct Answer: C**

A Point-to-Site (P2S) VPN gateway connection lets you create a secure connection to your virtual network from an individual client computer.

Reference:

<https://docs.microsoft.com/en-us/azure/vpn-gateway/vpn-gateway-about-vpngateways>

**Question #28Topic 1**

Note: The question is included in a number of questions that depicts the identical set-up. However, every question has a distinctive result. Establish if the solution satisfies the requirements.

Your company has a Microsoft SQL Server Always On availability group configured on their Azure virtual machines (VMs).

You need to configure an Azure internal load balancer as a listener for the availability group.

Solution: You create an HTTP health probe on port 1433. Does the solution meet the goal?

- A. Yes
- B. No

**Correct Answer: B****Question #29Topic 1**

Note: The question is included in a number of questions that depicts the identical set-up. However, every question has a distinctive result. Establish if the solution satisfies the requirements.

Your company has a Microsoft SQL Server Always On availability group configured on their Azure virtual machines (VMs).

You need to configure an Azure internal load balancer as a listener for the availability group. Solution:

You set Session persistence to Client IP.

Does the solution meet the goal?

- A. Yes

- B. No

**Correct Answer:** B Reference: <https://docs.microsoft.com/en-us/azure/virtual-machines/windows/sql/virtual-machines-windows-portal-sql-alwayson-int-listener>

#### Question #30 Topic 1

Note: The question is included in a number of questions that depicts the identical set-up. However, every question has a distinctive result. Establish if the solution satisfies the requirements.

Your company has a Microsoft SQL Server Always On availability group configured on their Azure virtual machines (VMs).

You need to configure an Azure internal load balancer as a listener for the availability group. Solution:

You enable Floating IP.

Does the solution meet the goal?

- A. Yes
- B. No

**Correct Answer:** A

#### Question #31 Topic 1

Your company has two on-premises servers named SRV01 and SRV02. Developers have created an application that runs on SRV01. The application calls a service on SRV02 by IP address.

You plan to migrate the application on Azure virtual machines (VMs). You have configured two VMs on a single subnet in an Azure virtual network.

You need to configure the two VMs with static internal IP addresses. What should you do?

- A. Run the New-AzureRMVMConfig PowerShell cmdlet.
- B. Run the Set-AzureSubnet PowerShell cmdlet.
- C. Modify the VM properties in the Azure Management Portal.
- D. Modify the IP properties in Windows Network and Sharing Center.
- E. Run the Set-AzureStaticVNetIP PowerShell cmdlet.

**Correct Answer:** E

Specify a static internal IP for a previously created VM

If you want to set a static IP address for a VM that you previously created, you can do so by using the following cmdlets. If you already set an IP address for the

VM and you want to change it to a different IP address, you'll need to remove the existing static IP address before running these cmdlets. See the instructions below to remove a static IP.

For this procedure, you'll use the Update-AzureVM cmdlet. The Update-AzureVM cmdlet restarts the VM as part of the update process. The DIP that you specify will be assigned after the VM restarts. In this example, we set the IP address for VM2, which is located in cloud service StaticDemo.

```
Get-AzureVM -ServiceName StaticDemo -Name VM2 | Set-AzureStaticVNetIP -IPAddress 192.168.4.7 | Update-AzureVM
```

#### Question #32 Topic 1

Your company has an Azure Active Directory (Azure AD) subscription.

You need to deploy five virtual machines (VMs) to your company's virtual network subnet.

The VMs will each have both a public and private IP address. Inbound and outbound security rules for all of these virtual machines must be identical.

Which of the following is the least amount of network interfaces needed for this configuration?

- A. 5
- B. 10
- C. 20
- D. 40

**Correct Answer:** A

**Question #33Topic 1**

Your company has an Azure Active Directory (Azure AD) subscription.

You need to deploy five virtual machines (VMs) to your company's virtual network subnet.

The VMs will each have both a public and private IP address. Inbound and outbound security rules for all of these virtual machines must be identical.

Which of the following is the least amount of security groups needed for this configuration?

- A. 4
- B. 3
- C. 2
- D. 1

**Correct Answer:** D

**Question #34Topic 1**

Your company's Azure subscription includes Azure virtual machines (VMs) that run Windows Server 2016.

One of the VMs is backed up every day using Azure Backup Instant Restore.

When the VM becomes infected with data encrypting ransomware, you decide to recover the VM's files.

Which of the following is TRUE in this scenario?

- A. You can only recover the files to the infected VM.
- B. You can recover the files to any VM within the company's subscription.
- C. You can only recover the files to a new VM.
- D. You will not be able to recover the files.

**Correct Answer:** B

**Question #35Topic 1**

Your company's Azure subscription includes Azure virtual machines (VMs) that run Windows Server 2016.

One of the VMs is backed up every day using Azure Backup Instant Restore.

When the VM becomes infected with data encrypting ransomware, you are required to restore the VM.

Which of the following actions should you take?

- A. You should restore the VM after deleting the infected VM.
- B. You should restore the VM to any VM within the company's subscription.
- C. You should restore the VM to a new Azure VM.
- D. You should restore the VM to an on-premise Windows device.

**Correct Answer:** C

Question #36 *Topic 1*

You administer a solution in Azure that is currently having performance issues.

You need to find the cause of the performance issues pertaining to metrics on the Azure infrastructure.

Which of the following is the tool you should use?

- A. Azure Traffic Analytics
- B. Azure Monitor
- C. Azure Activity Log
- D. Azure Advisor

**Correct Answer:** B

Metrics in Azure Monitor are stored in a time-series database which is optimized for analyzing timestamped data. This makes metrics particularly suited for alerting and fast detection of issues.

Reference:

<https://docs.microsoft.com/en-us/azure/azure-monitor/platform/data-platform>

Question #37 *Topic 1*

Your company has an Azure subscription that includes a Recovery Services vault.

You want to use Azure Backup to schedule a backup of your company's virtual machines (VMs) to the Recovery Services vault.

Which of the following VMs can you back up? Choose all that apply.

- A. VMs that run Windows 10.
- B. VMs that run Windows Server 2012 or higher.
- C. VMs that have NOT been shut down.
- D. VMs that run Debian 8.2+.
- E. VMs that have been shut down.

**Correct Answer:** ABCDE

Azure Backup supports backup of 64-bit Windows server operating system from Windows Server 2008.

Azure Backup supports backup of 64-bit Windows 10 operating system.

Azure Backup supports backup of 64-bit Debian operating system from Debian 7.9+. Azure Backup supports backup of VM that are shutdown or offline.

Reference: <https://docs.microsoft.com/en-us/azure/backup/backup-support-matrix-iaas>  
<https://docs.microsoft.com/en-us/azure/virtual-machines/linux/endorsed-distros>

**Question #38Topic 1**

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have an Azure Active Directory (Azure AD) tenant named contoso.com.

You have a CSV file that contains the names and email addresses of 500 external users.

You need to create a guest user account in contoso.com for each of the 500 external users.

Solution: You create a PowerShell script that runs the New-AzureADUser cmdlet for each user. Does this meet the goal?

- A. Yes
- B. No

**Correct Answer: B**

The New-AzureADUser cmdlet creates a user in Azure Active Directory (Azure AD).

Instead use the New-AzureADMSInvitation cmdlet which is used to invite a new external user to your directory. Reference:

<https://docs.microsoft.com/en-us/powershell/module/azuread/new-azureadmsinvitation>

**Question #39Topic 1**

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have an Azure Active Directory (Azure AD) tenant named contoso.com.

You have a CSV file that contains the names and email addresses of 500 external users.

You need to create a guest user account in contoso.com for each of the 500 external users.

Solution: From Azure AD in the Azure portal, you use the Bulk create user operation. Does this meet the goal?

- A. Yes
- B. No

**Correct Answer: B**

Instead use the New-AzureADMSInvitation cmdlet which is used to invite a new external user to your directory. Reference:

<https://docs.microsoft.com/en-us/powershell/module/azuread/new-azureadmsinvitation>

**Question #40Topic 1**

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have an Azure Active Directory (Azure AD) tenant named contoso.com.

You have a CSV file that contains the names and email addresses of 500 external users.

You need to create a guest user account in contoso.com for each of the 500 external users.

Solution: You create a PowerShell script that runs the New-AzureADMSInvitation cmdlet for each external user.

Does this meet the goal?

- A. Yes
- B. No

**Correct Answer: A**

Use the New-AzureADMSInvitation cmdlet which is used to invite a new external user to your directory.

Reference:

<https://docs.microsoft.com/en-us/powershell/module/azuread/new-azureadmsinvitation>

**Topic 2 - Question Set 2**

Question #1 *Topic 2*

HOTSPOT -

You have an Azure subscription named Subscription1 that contains a resource group named RG1.

In RG1, you create an internal load balancer named LB1 and a public load balancer named LB2. You need to ensure that an administrator named Admin1 can manage LB1 and LB2. The solution must follow the principle of least privilege.

Which role should you assign to Admin1 for each task? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

**Answer Area**

To add a backend pool to LB1:

Contributor on LB1
Network Contributor on LB1
Network Contributor on RG1
Owner on LB1

To add a health probe to LB2:

Contributor on LB2
Network Contributor on LB2
Network Contributor on RG1
Owner on LB2

**Correct**

**Answer:**

## Answer Area

To add a backend pool to LB1:

Contributor on LB1
Network Contributor on LB1
Network Contributor on RG1
Owner on LB1

To add a health probe to LB2:

Contributor on LB2
Network Contributor on LB2
Network Contributor on RG1
Owner on LB2

The Network Contributor role lets you manage networks, but not access them.

Reference:

<https://docs.microsoft.com/en-us/azure/role-based-access-control/built-in-roles>

Question #2 *Topic 2*

You have an Azure subscription that contains an Azure Active Directory (Azure AD) tenant named contoso.com and an Azure Kubernetes Service (AKS) cluster named AKS1.

An administrator reports that she is unable to grant access to AKS1 to the users in contoso.com.

You need to ensure that access to AKS1 can be granted to the contoso.com users. What should you do first?

- A. From contoso.com, modify the Organization relationships settings.
- B. From contoso.com, create an OAuth 2.0 authorization endpoint.
- C. Recreate AKS1.
  
- D. From AKS1, create a namespace.

**Correct Answer: B**

Reference:

<https://kubernetes.io/docs/reference/access-authn-authz/authentication/>

Question #3 *Topic 2*

You have a Microsoft 365 tenant and an Azure Active Directory (Azure AD) tenant named contoso.com.

You plan to grant three users named User1, User2, and User3 access to a temporary Microsoft SharePoint document library named Library1.

You need to create groups for the users. The solution must ensure that the groups are deleted automatically after 180 days.

Which two groups should you create? Each correct answer presents a complete solution. NOTE: Each correct selection is worth one point.

- A. a Microsoft 365 group that uses the Assigned membership type
- B. a Security group that uses the Assigned membership type
- C. a Microsoft 365 group that uses the Dynamic User membership type

- D. a Security group that uses the Dynamic User membership type
- E. a Security group that uses the Dynamic Device membership type

**Correct Answer:** AC

You can set expiration policy only for Office 365 groups in Azure Active Directory (Azure AD).

Note: With the increase in usage of Office 365 Groups, administrators and users need a way to clean up unused groups. Expiration policies can help remove inactive groups from the system and make things cleaner.

When a group expires, all of its associated services (the mailbox, Planner, SharePoint site, etc.) are also deleted.

You can set up a rule for dynamic membership on security groups or Office 365 groups.

Incorrect Answers:

B, D, E: You can set expiration policy only for Office 365 groups in Azure Active Directory (Azure AD).

Reference: <https://docs.microsoft.com/en-us/office365/admin/create-groups/office-365-groups-expirationpolicy?view=o365-worldwide>

Question #4 Topic 2 HOTSPOT

-

You have an Azure Active Directory (Azure AD) tenant named contoso.com that contains the users shown in the following table:

Name	Type	Member of
User1	Member	Group1
User2	Guest	Group1
User3	Member	None
UserA	Member	Group2
UserB	Guest	Group2

User3 is the owner of Group1.

Group2 is a member of Group1.

You configure an access review named Review1 as shown in the following exhibit:



## Create an access review

Access reviews enable reviewers to attest user's membership in a group or access to an application.

\* Review name

Description

\* Start date

Frequency

Duration (in days)

End  Never  End by Occurrences

\* Number of times

\* End date

### Users

Users to review

Scope  Guest users only  
 Everyone

\* Group

Group1

### Reviewers

Reviewers

### Programs

Link to program

Default program

✓ Upon completion settings

✓ Advanced settings

For each of the following statements, select Yes if the statement is true. Otherwise, select No. NOTE:  
Each correct selection is worth one point.

Hot Area:

## Answer Area

Statements	Yes	No
User3 can perform an access review of User1	<input type="radio"/>	<input type="radio"/>
User3 can perform an access review of UserA	<input type="radio"/>	<input type="radio"/>
User3 can perform an access review of UserB	<input type="radio"/>	<input type="radio"/>

Correct

Answer:

## Answer Area

Statements	Yes	No
User3 can perform an access review of User1	<input type="radio"/>	<input checked="" type="radio"/>
User3 can perform an access review of UserA	<input type="radio"/>	<input checked="" type="radio"/>
User3 can perform an access review of UserB	<input checked="" type="radio"/>	<input type="radio"/>

Reference: <https://docs.microsoft.com/en-us/azure/active-directory/governance/create-access-review> Question #5 Topic 2

HOTSPOT -

You have the Azure management groups shown in the following table:

Name	In management group
Tenant Root Group	<i>Not applicable</i>
ManagementGroup11	Tenant Root Group
ManagementGroup12	Tenant Root Group
ManagementGroup21	ManagementGroup11

You add Azure subscriptions to the management groups as shown in the following table:

Name	Management group
Subscription1	ManagementGroup21
Subscription2	ManagementGroup12

You create the Azure policies shown in the following table:

Name	Parameter	Scope
Not allowed resource types	virtualNetworks	Tenant Root Group
Allowed resource types	virtualNetworks	ManagementGroup12

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point. Hot Area:

## Answer Area

Statements	Yes	No
You can create a virtual network in Subscription1.	<input type="radio"/>	<input type="radio"/>
You can create a virtual machine in Subscription2.	<input type="radio"/>	<input type="radio"/>
You can add Subscription1 to ManagementGroup11.	<input type="radio"/>	<input type="radio"/>

Correct

Answer:

## Answer Area

Statements	Yes	No
You can create a virtual network in Subscription1.	<input type="radio"/>	<input checked="" type="radio"/>
You can create a virtual machine in Subscription2.	<input checked="" type="radio"/>	<input type="radio"/>
You can add Subscription1 to ManagementGroup11.	<input checked="" type="radio"/>	<input type="radio"/>

Box 1: No -

Virtual networks are not allowed at the root and is inherited. Deny overrides allowed.

Box 2: Yes -

Virtual Machines can be created on a Management Group provided the user has the required RBAC permissions.

Box 3: Yes -

Subscriptions can be moved between Management Groups provided the user has the required RBAC permissions.

Reference: <https://docs.microsoft.com/en-us/azure/governance/management-groups/overview>

<https://docs.microsoft.com/en-us/azure/governance/management-groups/manage#movingmanagement-groups-and-subscriptions>

Question #6Topic 2

You have an Azure policy as shown in the following exhibit:

**SCOPE**

\* Scope ([Learn more about setting the scope](#))  
Subscription 1

**Exclusions**  
Subscription 1/ContosoRG1

---

**BASICS**

\* Policy definition  
Not allowed resource types

\* Assignment name ⓘ  
Not allowed resource types

Assignment ID  
`/subscriptions/5eb8d0b6-ce3b-4ce0-a631-9f5321bedabb/providers/Microsoft.Authorization/policyAssignments/0e6fb866bf854f54accae2a9`

Description

Assigned by  
admin1@contoso.com

**PARAMETERS**

- \* Not allowed resource types ⓘ

Microsoft.Sql/servers

What is the effect of the policy?

- A. You are prevented from creating Azure SQL servers anywhere in Subscription 1.
- B. You can create Azure SQL servers in ContosoRG1 only.
- C. You are prevented from creating Azure SQL Servers in ContosoRG1 only.
- D. You can create Azure SQL servers in any resource group within Subscription 1.

**Correct Answer: B**

You are prevented from creating Azure SQL servers anywhere in Subscription 1 with the exception of ContosoRG1

Question #7Topic 2

HOTSPOT -

You have an Azure subscription that contains the resources shown in the following table:

Name	Type	Resource group	Tag
RG6	Resource group	<i>Not applicable</i>	<i>None</i>
VNET1	Virtual network	RG6	Department: D1

You assign a policy to RG6 as shown in the following table:

<b>Section</b>	<b>Setting</b>	<b>Value</b>
<b>Scope</b>	Scope	Subscription1/RG6
	Exclusions	<i>None</i>
<b>Basics</b>	Policy definition	Apply tag and its default value
	Assignment name	Apply tag and its default value
<b>Parameters</b>	Tag name	Label
	Tag value	Value1

To RG6, you apply the tag: RGroup: RG6.

You deploy a virtual network named VNET2 to RG6.

Which tags apply to VNET1 and VNET2? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

## Answer Area

VNET1:

None
Department: D1 only
Department: D1, and RGroup: RG6 only
Department: D1, and Label: Value1 only
Department: D1, RGroup: RG6, and Label: Value1

VNET2:

None
RGroup: RG6 only
Label: Value1 only
RGroup: RG6, and Label: Value1

Correct

Answer:

## Answer Area

VNET1:

None
Department: D1 only
Department: D1, and RGroup: RG6 only
Department: D1, and Label: Value1 only
Department: D1, RGroup: RG6, and Label: Value1

VNET2:

None
RGroup: RG6 only
Label: Value1 only
RGroup: RG6, and Label: Value1

VNET1: Department: D1, and Label:Value1 only.

Tags applied to the resource group or subscription are not inherited by the resources.

Note: Azure Policy allows you to use either built-in or custom-defined policy definitions and assign them to either a specific resource group or across a whole Azure subscription.

VNET2: Label:Value1 only.

Incorrect Answers:

RGROUP: RG6 -

Tags applied to the resource group or subscription are not inherited by the resources.

Reference:

<https://docs.microsoft.com/en-us/azure/azure-resource-manager/management/tag-policies>

Name	Type
storage1	Azure Storage account
VNET1	Virtual network
VM1	Azure virtual machine
VM1Managed	Managed disk for VM1
RVAULT1	Recovery Services vault for the site recovery of VM1

Question #8Topic 2

You have an Azure subscription named AZPT1 that contains the resources shown in the following table:

You create a new Azure subscription named AZPT2.

You need to identify which resources can be moved to AZPT2. Which resources should you identify?

- A. VM1, storage1, VNET1, and VM1Managed only
- B. VM1 and VM1Managed only
- C. VM1, storage1, VNET1, VM1Managed, and RVAULT1
- D. RVAULT1 only

**Correct Answer: C**

You can move a VM and its associated resources to a different subscription by using the Azure portal. You can now move an Azure Recovery Service (ASR) Vault to either a new resource group within the current subscription or to a new subscription.

Reference: <https://docs.microsoft.com/en-us/azure/azure-resource-manager/management/move-resource-group-and-subscription>

**Question #9Topic 2**

You recently created a new Azure subscription that contains a user named Admin1.

Admin1 attempts to deploy an Azure Marketplace resource by using an Azure Resource Manager template. Admin1 deploys the template by using Azure

PowerShell and receives the following error message: 'User failed validation to purchase resources. Error message: 'Legal terms have not been accepted for this item on this subscription. To accept legal terms, please go to the Azure portal (<http://go.microsoft.com/fwlink/?LinkId=534873>) and configure programmatic deployment for the Marketplace item or create it there for the first time.' You need to ensure that Admin1 can deploy the Marketplace resource successfully. What should you do?

- A. From Azure PowerShell, run the Set-AzApiManagementSubscription cmdlet
- B. From the Azure portal, register the Microsoft.Marketplace resource provider
- C. From Azure PowerShell, run the Set-AzMarketplaceTerms cmdlet
- D. From the Azure portal, assign the Billing administrator role to Admin1

**Correct Answer: C**

Reference:

<https://docs.microsoft.com/en-us/powershell/module/az.marketplaceordering/setazmarketplaceterms?view=azps-4.1.0>

**Question #10Topic 2**

You have an Azure Active Directory (Azure AD) tenant that contains 5,000 user accounts.

You create a new user account named AdminUser1.

You need to assign the User administrator administrative role to AdminUser1. What should you do from the user account properties?

- A. From the Licenses blade, assign a new license
- B. From the Directory role blade, modify the directory role
- C. From the Groups blade, invite the user account to a new group

**Correct Answer: B**

Assign a role to a user -

1. Sign in to the Azure portal with an account that's a global admin or privileged role admin for the directory.
2. Select Azure Active Directory, select Users, and then select a specific user from the list.
3. For the selected user, select Directory role, select Add role, and then pick the appropriate admin roles from the Directory roles list, such as Conditional access administrator.
4. Press Select to save. Reference: <https://docs.microsoft.com/en-us/azure/active-directory/fundamentals/active-directory-users-assignrole-azure-portal>

**Question #11Topic 2**

You have an Azure Active Directory (Azure AD) tenant named contoso.onmicrosoft.com that contains 100 user accounts.

You purchase 10 Azure AD Premium P2 licenses for the tenant.

You need to ensure that 10 users can use all the Azure AD Premium features. What should you do?

- A. From the Licenses blade of Azure AD, assign a license
- B. From the Groups blade of each user, invite the users to a group
- C. From the Azure AD domain, add an enterprise application
- D. From the Directory role blade of each user, modify the directory role

**Correct Answer: A**

Reference:

<https://docs.microsoft.com/en-us/azure/active-directory/fundamentals/license-users-groups>

**Question #12Topic 2**

You have an Azure subscription named Subscription1 and an on-premises deployment of Microsoft System Center Service Manager.

Subscription1 contains a virtual machine named VM1.

You need to ensure that an alert is set in Service Manager when the amount of available memory on VM1 is below 10 percent. What should you do first?

- A. Create an automation runbook
- B. Deploy a function app
- C. Deploy the IT Service Management Connector (ITSM)
- D. Create a notification

**Correct Answer: C**

The IT Service Management Connector (ITSMC) allows you to connect Azure and a supported IT Service Management (ITSM) product/service, such as the Microsoft System Center Service Manager.

With ITSMC, you can create work items in ITSM tool, based on your Azure alerts (metric alerts, Activity Log alerts and Log Analytics alerts).

Reference:

<https://docs.microsoft.com/en-us/azure/azure-monitor/platform/itsmc-overview>

**Question #13Topic 2**

You sign up for Azure Active Directory (Azure AD) Premium P2.

You need to add a user named admin1@contoso.com as an administrator on all the computers that will be joined to the Azure AD domain. What should you configure in Azure AD?

- A. Device settings from the Devices blade
- B. Providers from the MFA Server blade
- C. User settings from the Users blade
- D. General settings from the Groups blade

**Correct Answer: A**

When you connect a Windows device with Azure AD using an Azure AD join, Azure AD adds the following security principles to the local administrators group on the device:

- The Azure AD global administrator role
- The Azure AD device administrator role
- The user performing the Azure AD join

In the Azure portal, you can manage the device administrator role on the Devices page. To open the Devices page:

1. Sign in to your Azure portal as a global administrator or device administrator.
2. On the left navbar, click Azure Active Directory.
3. In the Manage section, click Devices.
4. On the Devices page, click Device settings.
5. To modify the device administrator role, configure Additional local administrators on Azure AD joined devices. Reference:

<https://docs.microsoft.com/en-us/azure/active-directory/devices/assign-local-admin>

Question #14 *Topic 2*

HOTSPOT -

You have Azure Active Directory tenant named Contoso.com that includes following users:

Name	Role
User1	Cloud device administrator
User2	User administrator

Contoso.com includes following Windows 10 devices:

Name	Join type
Device1	Azure AD registered
Device2	Azure AD joined

You create following security groups in Contoso.com:

Name	Membership Type	Owner
Group1	Assigned	User2
Group2	Dynamic Device	User2

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point.

Hot Area:

### Answer Area

Statements	Yes	No
User1 can add Device2 to Group1	<input type="radio"/>	<input type="radio"/>
User2 can add Device1 to Group1	<input type="radio"/>	<input type="radio"/>
User2 can add Device2 to Group2	<input type="radio"/>	<input type="radio"/>

**Correct**

**Answer:**

## Answer Area

Statements	Yes	No
User1 can add Device2 to Group1	<input checked="" type="radio"/>	<input type="radio"/>
User2 can add Device1 to Group1	<input type="radio"/>	<input checked="" type="radio"/>
User2 can add Device2 to Group2	<input checked="" type="radio"/>	<input type="radio"/>

Box 1: Yes -

User1 is a Cloud Device Administrator.

Device2 is Azure AD joined.

Group1 has the assigned to join type. User1 is the owner of Group1.

Note: Assigned groups - Manually add users or devices into a static group.

Azure AD joined or hybrid Azure AD joined devices utilize an organizational account in Azure AD

Box 2: No -

User2 is a User Administrator.

Device1 is Azure AD registered.

Group1 has the assigned join type, and the owner is User1.

Note: Azure AD registered devices utilize an account managed by the end user, this account is either a Microsoft account or another locally managed credential.

Box 3: Yes -

User2 is a User Administrator.

Device2 is Azure AD joined.

Group2 has the Dynamic Device join type, and the owner is User2.

Reference: <https://docs.microsoft.com/en-us/azure/active-directory/devices/overview>

Question #15Topic 2

You have an Azure subscription that contains a resource group named RG26.

RG26 is set to the West Europe location and is used to create temporary resources for a project. RG26 contains the resources shown in the following table.

Name	Type	Location
VM1	Virtual machine	North Europe
RGV1	Recovery Services vault	North Europe
SQLDB01	SQL server in Azure VM	North Europe
sa001	Storage account	West Europe

SQLDB01 is backed up to RGV1.

When the project is complete, you attempt to delete RG26 from the Azure portal. The deletion fails. You need to delete RGV1.

What should you do first?

- A. Delete VM1
- B. Stop VM1
- C. Stop the backup of SQLDB01

- D. Delete sa001

**Correct Answer: C**

**Question #16Topic 2**

You have an Azure subscription named Subscription1 that contains a virtual network named VNet1. VNet1 is in a resource group named RG1.

Subscription1 has a user named User1. User1 has the following roles:

- Reader
- Security Admin
- Security Reader

You need to ensure that User1 can assign the Reader role for VNet1 to other users. What should you do?

- A. Remove User1 from the Security Reader and Reader roles for Subscription1.
- B. Assign User1 the User Access Administrator role for VNet1.
- C. Assign User1 the Network Contributor role for VNet1.
- D. Assign User1 the Network Contributor role for RG1.

**Correct Answer: B**

Has full access to all resources including the right to delegate access to others.

Note:

There are several versions of this question in the exam. The question has two possible correct answers:  Assign User1 the User Access Administrator role for VNet1.

Assign User1 the Owner role for VNet1.

Other incorrect answer options you may see on the exam include the following:

Assign User1 the Contributor role for VNet1.

Remove User1 from the Security Reader and Reader roles for Subscription1. Assign User1 the Contributor role for Subscription1.

Remove User1 from the Security Reader role for Subscription1. Assign User1 the Contributor role for RG1.

Reference:

<https://docs.microsoft.com/en-us/azure/role-based-access-control/overview>

**Question #17Topic 2**

You have an Azure Active Directory (Azure AD) tenant named contosocloud.onmicrosoft.com.

Your company has a public DNS zone for contoso.com.

You add contoso.com as a custom domain name to Azure AD.

You need to ensure that Azure can verify the domain name. Which type of DNS record should you create?

- A. MX
- B. NSEC
- C. PTR
- D. RRSIG

**Correct Answer: A**

To verify your custom domain name (example)

1. Sign in to the Azure portal using a Global administrator account for the directory.
2. Select Azure Active Directory, and then select Custom domain names.
3. On the Fabrikam - Custom domain names page, select the custom domain name, Contoso.
4. On the Contoso page, select Verify to make sure your custom domain is properly registered and is valid for Azure AD. Use either the TXT or the MX record type.

Note:

There are several versions of this question in the exam. The question can have two correct answers:

1. MX
2. TXT

The question can also have other incorrect answer options, including the following:

1. SRV
2. NSEC3

Reference:

<https://docs.microsoft.com/en-us/azure/dns/dns-web-sites-custom-domain>

**Question #18Topic 2**

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have an Azure Directory (Azure AD) tenant named Adatum and an Azure Subscription named Subscription1. Adatum contains a group named Developers.

Subscription1 contains a resource group named Dev.

You need to provide the Developers group with the ability to create Azure logic apps in the Dev resource group.

Solution: On Subscription1, you assign the DevTest Labs User role to the Developers group. Does this meet the goal?

- A. Yes
- B. No

**Correct Answer: B**

DevTest Labs User role only lets you connect, start, restart, and shutdown virtual machines in your Azure DevTest Labs.

The Logic App Contributor role lets you manage logic app, but not access to them. It provides access to view, edit, and update a logic app.

Reference: <https://docs.microsoft.com/en-us/azure/role-based-access-control/built-in-roles>  
<https://docs.microsoft.com/en-us/azure/logic-apps/logic-apps-securing-a-logic-app>

**Question #19Topic 2**

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have an Azure Directory (Azure AD) tenant named Adatum and an Azure Subscription named Subscription1. Adatum contains a group named Developers. Subscription1 contains a resource group named Dev. You need to provide the Developers group with the ability to create Azure logic apps in the Dev resource group. Solution: On Subscription1, you assign the Logic App Operator role to the Developers group. Does this meet the goal?

- A. Yes
- B. No

**Correct Answer: B**

You would need the Logic App Contributor role.

Reference: <https://docs.microsoft.com/en-us/azure/role-based-access-control/built-in-roles>  
<https://docs.microsoft.com/en-us/azure/logic-apps/logic-apps-securing-a-logic-app>

**Question #20Topic 2**

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have an Azure Directory (Azure AD) tenant named Adatum and an Azure Subscription named Subscription1. Adatum contains a group named Developers. Subscription1 contains a resource group named Dev. You need to provide the Developers group with the ability to create Azure logic apps in the Dev resource group. Solution: On Dev, you assign the Contributor role to the Developers group. Does this meet the goal?

- A. Yes
- B. No

**Correct Answer: A**

The Contributor role can manage all resources (and add resources) in a Resource Group.

**Question #21Topic 2**

DRAG DROP -

You have an Azure subscription that is used by four departments in your company. The subscription contains 10 resource groups. Each department uses resources in several resource groups. You need to send a report to the finance department. The report must detail the costs for each department.

Which three actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order. Select and Place:

## Actions

## Answer Area

Assign a tag to each resource group.

Assign a tag to each resource.

Download the usage report.

From the Cost analysis blade, filter the view by tag.

Open the **Resource costs** blade of each resource group.



### Correct

Answer:

## Actions

## Answer Area

Assign a tag to each resource group.

Assign a tag to each resource.

Assign a tag to each resource.

From the Cost analysis blade, filter the view by tag.

Download the usage report.

Download the usage report.

From the Cost analysis blade, filter the view by tag.

Open the **Resource costs** blade of each resource group.



Box 1: Assign a tag to each resource.

You apply tags to your Azure resources giving metadata to logically organize them into a taxonomy. After you apply tags, you can retrieve all the resources in your subscription with that tag name and value. Each resource or resource group can have a maximum of 15 tag name/value pairs. Tags applied to the resource group are not inherited by the resources in that resource group.

Box 2: From the Cost analysis blade, filter the view by tag

After you get your services running, regularly check how much they're costing you. You can see the current spend and burn rate in Azure portal.

1. Visit the Subscriptions blade in Azure portal and select a subscription.

You should see the cost breakdown and burn rate in the popup blade.

2. Click Cost analysis in the list to the left to see the cost breakdown by resource. Wait 24 hours after you add a service for the data to populate.

3. You can filter by different properties like tags, resource group, and timespan. Click Apply to confirm the filters and Download if you want to export the view to a Comma-Separated Values (.csv) file. Box 3:

Download the usage report Reference: [https://docs.microsoft.com/en-us/azure/azure-resource-](https://docs.microsoft.com/en-us/azure/azure-resource)

manager/resource-group-using-tags <https://docs.microsoft.com/en-us/azure/billing/billing-getting-started>

Question #22 *Topic 2*

You have an Azure subscription named Subscription1 that contains an Azure Log Analytics workspace named Workspace1.

You need to view the error events from a table named Event. Which query should you run in Workspace1?

- A. Get-Event Event | where {\$\_.EventType == "error"}
- B. search in (Event) "error"
- C. select \* from Event where EventType == "error"
- D. search in (Event) \* | where EventType -eq "error"

**Correct Answer:** *B*

To search a term in a specific table, add the table-name just after the search operator Note:

There are several versions of this question in the exam. The question has two possible correct answers:

1. Event | search "error"
2. Event | where EventType == "error"
3. search in (Event) "error"

Other incorrect answer options you may see on the exam include the following:

1. Get-Event Event | where {\$\_.EventTye -eq "error"}
  2. Event | where EventType is "error"
  3. search in (Event) \* | where EventType -eq "error"
  4. select \* from Event where EventType is "error"
- Reference: <https://docs.microsoft.com/en-us/azure/azure-monitor/log-query/search-queries>  
<https://docs.microsoft.com/en-us/azure/azure-monitor/log-query/get-started-portal>  
<https://docs.microsoft.com/en-us/azure/data-explorer/kusto/query/searchoperator?pivots=azuredataexplorer>

Question #23 *Topic 2 HOTSPOT*

-

You have an Azure subscription that contains a virtual network named VNET1 in the East US 2 region. A network interface named VM1-NI is connected to VNET1.

You successfully deploy the following Azure Resource Manager template.

```

{
  "apiVersion": "2017-03-30",
  "type": "Microsoft.Compute/virtualMachines",
  "name": "VM1",
  "zones": "1",
  "location": "EastUS2",
  "dependsOn": [
    "[resourceId('Microsoft.Network/networkInterfaces', 'VM1-NI')]"
  ],
  "properties": {
    "hardwareProfile": {
      "vmSize": "Standard_A2_v2"
    },
    "osProfile": {
      "computerName": "VM1",
      "adminUsername": "AzureAdmin",
      "adminPassword": "[parameters('adminPassword')]"
    },
    "storageProfile": {
      "imageReference": "[variables('image')]",
      "osDisk": {
        "createOption": "FromImage"
      }
    },
    "networkProfile": {
      "networkInterfaces": [
        {
          "id": "[resourceId('Microsoft.Network/networkInterfaces', 'VM1-NI')]"
        }
      ]
    }
  }
},
{
  "apiVersion": "2017-03-30",
  "type": "Microsoft.Compute/virtualMachines",
  "name": "VM2",
  "zones": "2",
  "location": "EastUS2",
  "dependsOn": [
    "[resourceId('Microsoft.Network/networkInterfaces', 'VM2-NI')]"
  ],
  "properties": {
    "hardwareProfile": {
      "vmSize": "Standard_A2_v2"
    },
    "osProfile": {
      "computerName": "VM2",
      "adminUsername": "AzureAdmin",
      "adminPassword": "[parameters('adminPassword')]"
    },
    "storageProfile": {
      "imageReference": "[variables('image')]",
      "osDisk": {
        "createOption": "FromImage"
      }
    },
    "networkProfile": {
      "networkInterfaces": [
        {
          "id": "[resourceId('Microsoft.Network/networkInterfaces', 'VM2-NI')]"
        }
      ]
    }
  }
}
}

```

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point. Hot Area:

**Answer Area**

Statements	Yes	No
VM1 and VM2 can connect to VNET1	<input type="radio"/>	<input type="radio"/>
If an Azure datacenter becomes unavailable, VM1 or VM2 will be available.	<input type="radio"/>	<input type="radio"/>
If the East US 2 region becomes unavailable, VM1 or VM2 will be available.	<input type="radio"/>	<input type="radio"/>

**Correct**

**Answer:**

**Answer Area**

Statements	Yes	No
VM1 and VM2 can connect to VNET1	<input checked="" type="radio"/>	<input type="radio"/>
If an Azure datacenter becomes unavailable, VM1 or VM2 will be available.	<input checked="" type="radio"/>	<input type="radio"/>
If the East US 2 region becomes unavailable, VM1 or VM2 will be available.	<input type="radio"/>	<input checked="" type="radio"/>

Box 1: Yes -

Box 2: Yes -

VM1 is in Zone1, while VM2 is on Zone2.

Box 3: No - Reference: <https://docs.microsoft.com/en-us/azure/architecture/resiliency/recovery-loss-azure-region>

Question #24 Topic 2

You have an Azure subscription named Subscription1. Subscription1 contains the resource groups in the following table.

Name	Azure region	Policy
RG1	West Europe	Policy1
RG2	North Europe	Policy2
RG3	France Central	Policy3

RG1 has a web app named WebApp1. WebApp1 is located in West Europe.

You move WebApp1 to RG2.

What is the effect of the move?

- A. The App Service plan for WebApp1 remains in West Europe. Policy2 applies to WebApp1.
- B. The App Service plan for WebApp1 moves to North Europe. Policy2 applies to WebApp1.

- C. The App Service plan for WebApp1 remains in West Europe. Policy1 applies to WebApp1.
- D. The App Service plan for WebApp1 moves to North Europe. Policy1 applies to WebApp1.

**Correct Answer: A**

You can move an app to another App Service plan, as long as the source plan and the target plan are in the same resource group and geographical region.

The region in which your app runs is the region of the App Service plan it's in. However, you cannot change an App Service plan's region.

Reference:

<https://docs.microsoft.com/en-us/azure/app-service/app-service-plan-manage>

Question #25 *Topic 2 HOTSPOT*

-

You have an Azure subscription named Subscription1 that has a subscription ID of c276fc76-9cd4-44c999a7-4fd71546436e.

You need to create a custom RBAC role named CR1 that meets the following requirements:

- Can be assigned only to the resource groups in Subscription1
- Prevents the management of the access permissions for the resource groups
- Allows the viewing, creating, modifying, and deleting of resources within the resource groups What should you specify in the assignable scopes and the permission elements of the definition of CR1?

To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

## Answer Area

```
"assignableScopes": [
```

"/"
"/subscriptions/c276fc76-9cd4-44c9-99a7-4fd71546436e"
"/subscriptions/c276fc76-9cd4-44c9-99a7-4fd71546436e/resourceGroups"

```
],
```

```
"permissions": [
```

```
{
```

```
    "actions": [
```

```
        "read"
```

```
    ],
```

```
    "additionalProperties": {},
```

```
    "dataActions": [],
```

```
    "notActions": [
```

```
        "Microsoft.Authorization/*"
```

```
        "Microsoft.Resources/*"
```

```
        "Microsoft.Security/*"
```

```
    ],
```

```
    "notDataActions": []
```

```
}
```

```
,
```

**Correct**

**Answer:**

## Answer Area

```
"assignableScopes": [  
    "/  
    "/subscriptions/c276fc76-9cd4-44c9-99a7-4fd71546436e"  
    "/subscriptions/c276fc76-9cd4-44c9-99a7-4fd71546436e/resourceGroups"  
,  
    "permissions": [  
        {  
            "actions": [  
                "*"  
            ],  
            "additionalProperties": {},  
            "dataActions": [],  
            "notActions": [  
                "Microsoft.Authorization/*"  
                "Microsoft.Resources/*"  
                "Microsoft.Security/*"  
            ],  
            "notDataActions": []  
        }  
    ]  
],
```

Reference: <https://docs.microsoft.com/en-us/azure/role-based-access-control/custom-roles>

<https://docs.microsoft.com/en-us/azure/role-based-access-control/resource-provideroperations#microsoftresources>

Question #26 Topic 2

You have an Azure subscription.

Users access the resources in the subscription from either home or from customer sites. From home, users must establish a point-to-site VPN to access the Azure resources. The users on the customer sites access the Azure resources by using site-to-site VPNS.

You have a line-of-business-app named App1 that runs on several Azure virtual machine. The virtual machines run Windows Server 2016.

You need to ensure that the connections to App1 are spread across all the virtual machines. What are two possible Azure services that you can use? Each correct answer presents a complete solution.

NOTE: Each correct selection is worth one point.

- A. an internal load balancer
- B. a public load balancer
- C. an Azure Content Delivery Network (CDN)
- D. Traffic Manager
- E. an Azure Application Gateway

Correct Answer: AE

Network traffic from the VPN gateway is routed to the cloud application through an internal load balancer. The load balancer is located in the front-end subnet of the application.

Reference:

<https://docs.microsoft.com/en-us/azure/architecture/reference-architectures/hybrid-networking/vpn>

<https://docs.microsoft.com/en-us/azure/load-balancer/load-balancer-overview>

<https://docs.microsoft.com/en-us/azure/application-gateway/overview>

#### Question #27 Topic 2

You have an Azure subscription.

You have 100 Azure virtual machines.

You need to quickly identify underutilized virtual machines that can have their service tier changed to a less expensive offering. Which blade should you use?

- A. Monitor
- B. Advisor
- C. Metrics
- D. Customer insights

#### Correct Answer: B

Advisor helps you optimize and reduce your overall Azure spend by identifying idle and underutilized resources. You can get cost recommendations from the Cost tab on the Advisor dashboard.

Reference:

<https://docs.microsoft.com/en-us/azure/advisor/advisor-cost-recommendations>

#### Question #28 Topic 2

HOTSPOT -

You have an Azure Active Directory (Azure AD) tenant.

You need to create a conditional access policy that requires all users to use multi-factor authentication when they access the Azure portal.

Which three settings should you configure? To answer, select the appropriate settings in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

## Answer Area

\* Name

Policy1



## Assignments

Users and groups



0 users and groups selected

Cloud apps



0 cloud apps selected

Conditions



0 conditions selected

## Access controls

Grant



0 controls selected

Session



## Answer Area

\* Name

Policy1



## Assignments

Users and groups



0 users and groups selected

Cloud apps



0 cloud apps selected

Conditions



0 conditions selected

## Access controls

Grant



0 controls selected

Session



**Correct Answer:**

Reference:

<https://docs.microsoft.com/en-us/azure/active-directory/conditional-access/app-based-mfa>

Question #29 Topic 2

You have an Azure Active Directory (Azure AD) tenant named contoso.onmicrosoft.com.

The User administrator role is assigned to a user named Admin1.

An external partner has a Microsoft account that uses the user1@outlook.com sign in. Admin1 attempts to invite the external partner to sign in to the Azure AD tenant and receives the following error message: `Unable to invite user user1@outlook.com ``" Generic authorization exception.` You need to ensure that Admin1 can invite the external partner to sign in to the Azure AD tenant. What should you do?

- A. From the Users settings blade, modify the External collaboration settings.
- B. From the Custom domain names blade, add a custom domain.
- C. From the Organizational relationships blade, add an identity provider.
- D. From the Roles and administrators blade, assign the Security administrator role to Admin1.

**Correct Answer:** A Reference: <https://techcommunity.microsoft.com/t5/Azure-Active-Directory/Generic-authorization-exceptioninviting-Azure-AD-gests/td-p/274742>

### Question #30Topic 2

You have an Azure subscription linked to an Azure Active Directory tenant. The tenant includes a user account named User1.

You need to ensure that User1 can assign a policy to the tenant root management group. What should you do?

- A. Assign the Owner role for the Azure Subscription to User1, and then modify the default conditional access policies.
- B. Assign the Owner role for the Azure subscription to User1, and then instruct User1 to configure access management for Azure resources.
- C. Assign the Global administrator role to User1, and then instruct User1 to configure access management for Azure resources.
- D. Create a new management group and delegate User1 as the owner of the new management group.

### Correct Answer:C

The following chart shows the list of roles and the supported actions on management groups.

Azure Role Name	Create	Rename	Move**	Delete	Assign Access	Assign Policy	Read
Owner	X	X	X	X	X	X	X
Contributor	X	X	X	X			X
MG Contributor*	X	X	X	X			X
Reader							X
MG Reader*							X
Resource Policy Contributor						X	
User Access Administrator					X	X	

#### Note:

Each directory is given a single top-level management group called the "Root" management group. This root management group is built into the hierarchy to have all management groups and subscriptions fold up to it. This root management group allows for global policies and Azure role assignments to be applied

at the directory level. The Azure AD Global Administrator needs to elevate themselves to the User Access Administrator role of this root group initially. After elevating access, the administrator can assign any Azure role to other directory users or groups to manage the hierarchy. As administrator, you can assign your own account as owner of the root management group.

Reference:

<https://docs.microsoft.com/en-us/azure/governance/management-groups/overview>

Question #31 Topic 2 HOTSPOT

You have an Azure Active Directory (Azure AD) tenant named adatum.com. Adatum.com contains the groups in the following table.

Name	Group type	Membership type	Membership rule
Group1	Security	Dynamic user	(user.city -startsWith "m")
Group2	Microsoft 365	Dynamic user	(user.department -notIn ["human resources"])
Group3	Microsoft 365	Assigned	<i>Not applicable</i>

You create two user accounts that are configured as shown in the following table.

Name	City	Department	Office 365 license assigned
User1	Montreal	Human resources	Yes
User2	Melbourne	Marketing	No

Of which groups are User1 and User2 members? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

## Answer Area

User1:

Group1 only
Group2 only
Group3 only
Group1 and Group2 only
Group1 and Group3 only
Group2 and Group3 only
Group1, Group2, and Group3

User2:

Group1 only
Group2 only
Group3 only
Group1 and Group2 only
Group1 and Group3 only
Group2 and Group3 only
Group1, Group2, and Group3

## Answer Area

User1:

Group1 only
Group2 only
Group3 only
Group1 and Group2 only
Group1 and Group3 only
Group2 and Group3 only
Group1, Group2, and Group3

User2:

Group1 only
Group2 only
Group3 only
Group1 and Group2 only
Group1 and Group3 only
Group2 and Group3 only
Group1, Group2, and Group3

**Correct Answer:**

Box 1: Group 1 only -

First rule applies -

Box 2: Group1 and Group2 only - Both

membership rules apply.

Reference:

<https://docs.microsoft.com/en-us/sccm/core/clients/manage/collections/create-collections>

Question #32 Topic 2 HOTSPOT

You have a hybrid deployment of Azure Active Directory (Azure AD) that contains the users shown in the following table.

Name	Type	Source
User1	Member	Azure AD
User2	Member	Windows Server Active Directory
User3	Guest	Microsoft account

You need to modify the JobTitle and UsageLocation attributes for the users.

For which users can you modify the attributes from Azure AD? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

## Answer Area

JobTitle:

User1 only
User1 and User2 only
User1 and User3 only
User1, User2, and User3

UsageLocation:

User1 only
User1 and User2 only
User1 and User3 only
User1, User2, and User3

**Correct**

Answer:

## Answer Area

JobTitle:

User1 only
User1 and User2 only
User1 and User3 only
User1, User2, and User3

UsageLocation:

User1 only
User1 and User2 only
User1 and User3 only
User1, User2, and User3

Box 1: User1 and User3 only -

You must use Windows Server Active Directory to update the identity, contact info, or job info for users whose source of authority is Windows Server Active Directory.

Box 2: User1, User2, and User3 - Reference: <https://docs.microsoft.com/en-us/azure/active-directory/fundamentals/active-directory-users-profile#Topic 2>

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You need to ensure that an Azure Active Directory (Azure AD) user named Admin1 is assigned the required role to enable Traffic Analytics for an Azure subscription.

Solution: You assign the Network Contributor role at the subscription level to Admin1. Does this meet the goal?

- A. Yes
- B. No

**Correct Answer: A**

Your account must meet one of the following to enable traffic analytics:

Your account must have any one of the following Azure roles at the subscription scope: owner, contributor, reader, or network contributor.

Reference:

<https://docs.microsoft.com/en-us/azure/network-watcher/traffic-analytics-faq>

**Question #34Topic 2**

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You need to ensure that an Azure Active Directory (Azure AD) user named Admin1 is assigned the required role to enable Traffic Analytics for an Azure subscription.

Solution: You assign the Owner role at the subscription level to Admin1. Does this meet the goal?

- A. Yes
- B. No

**Correct Answer: A**

Your account must meet one of the following to enable traffic analytics:

Your account must have any one of the following Azure roles at the subscription scope: owner, contributor, reader, or network contributor.

Reference:

<https://docs.microsoft.com/en-us/azure/network-watcher/traffic-analytics-faq>

**Question #35Topic 2**

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You need to ensure that an Azure Active Directory (Azure AD) user named Admin1 is assigned the required role to enable Traffic Analytics for an Azure subscription.

Solution: You assign the Reader role at the subscription level to Admin1. Does this meet the goal?

- A. Yes
- B. No

**Correct Answer: A**

Your account must meet one of the following to enable traffic analytics:

Your account must have any one of the following Azure roles at the subscription scope: owner, contributor, reader, or network contributor.

Reference:

<https://docs.microsoft.com/en-us/azure/network-watcher/traffic-analytics-faq>

**Question #36Topic 2**

You have an Azure subscription that contains a user named User1.

You need to ensure that User1 can deploy virtual machines and manage virtual networks. The solution must use the principle of least privilege.

Which role-based access control (RBAC) role should you assign to User1?

- A. Owner

- B. Virtual Machine Contributor
- C. Contributor
- D. Virtual Machine Administrator Login

**Correct Answer: C**

Contributor: Grants full access to manage all resources, but does not allow you to assign roles in Azure RBAC

Incorrect Answers:

A: Owner: Grants full access to manage all resources, including the ability to assign roles in Azure RBAC.

B: Virtual Machine Contributor: Lets you manage virtual machines, but not access to them, and not the virtual network or storage account they're connected to.

D: Virtual Machine Administrator Login: View Virtual Machines in the portal and login as administrator.

Reference:

<https://docs.microsoft.com/en-us/azure/role-based-access-control/built-in-roles>

Question #37 Topic 2 HOTSPOT

You have an Azure Active Directory (Azure AD) tenant that contains three global administrators named Admin1, Admin2, and Admin3.

The tenant is associated to an Azure subscription. Access control for the subscription is configured as shown in the Access control exhibit. (Click the Access Control tab.)

The screenshot shows the Azure portal's "Role assignments" page for a specific resource. At the top, there are navigation links: "Check access", "Role assignments" (which is underlined), "Deny assignments", "Classic administrators", and "Roles". Below these are filter and search controls: "Name", "Type" (set to "All"), "Scope" (set to "All scopes"), "Group by" (set to "Role"), and a "Role" dropdown menu. The "Role" menu shows "Owner" selected, with a sub-menu for "Search for a role" and checkboxes for "Select all" and "Owner".

The main area shows a table with the following data:

NAME	TYPE	ROLE	SCOPE
OWNER			
AD Admin3 Admin3@Cont...	User	Owner	This resource

Below the table, a note states: "You sign in to the Azure portal as Admin1 and configure the tenant as shown in the Tenant exhibit. (Click the Tenant tab.)"

Save Discard

### Directory properties

\* Name

Cont190525outlook

Country or region

Slovenia

Location

EU Model Clause compliant datacenters

Notification language

English

Directory ID

a93d91a6-faca-4fa6-a749-f6c25469152e

Technical contact

Global privacy contact

Privacy statement URL

### Access management for Azure resources

Admin1@Cont190525outlook.onmicrosoft.com (Admin1@Cont190525outlook.onmicrosoft.com) can manage access to all Azure subscriptions and management groups in this directory. [Learn more](#)

Yes

No

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point. Hot Area:

### Answer Area

Statements	Yes	No
Admin1 can add Admin 2 as an owner of the subscription.	<input type="radio"/>	<input type="radio"/>
Admin3 can add Admin 2 as an owner of the subscription.	<input type="radio"/>	<input type="radio"/>
Admin2 can create a resource group in the subscription.	<input type="radio"/>	<input type="radio"/>

Correct

Answer:

## Answer Area

Statements	Yes	No
<b>Admin1 can add Admin 2 as an owner of the subscription.</b>	<input type="radio"/>	<input checked="" type="radio"/>
<b>Admin3 can add Admin 2 as an owner of the subscription.</b>	<input checked="" type="radio"/>	<input type="radio"/>
<b>Admin2 can create a resource group in the subscription.</b>	<input type="radio"/>	<input checked="" type="radio"/>

Box 1: No -

Only Admin3, the owner, can assign ownership.

Box 2: Yes -

Box 3: No - Reference: <https://docs.microsoft.com/en-us/azure/cost-management-billing/manage/add-change-subscriptionadministrator>

Question #38Topic 2

You have an Azure subscription named Subscription1 that contains an Azure virtual machine named VM1. VM1 is in a resource group named RG1.

VM1 runs services that will be used to deploy resources to RG1.

You need to ensure that a service running on VM1 can manage the resources in RG1 by using the identity of VM1.

What should you do first?

- A. From the Azure portal, modify the Managed Identity settings of VM1
- B. From the Azure portal, modify the Access control (IAM) settings of RG1
- C. From the Azure portal, modify the Access control (IAM) settings of VM1
- D. From the Azure portal, modify the Policies settings of RG1

**Correct Answer:** A

Managed identities for Azure resources provides Azure services with an automatically managed identity in Azure Active Directory. You can use this identity to authenticate to any service that supports Azure AD authentication, without having credentials in your code.

You can enable and disable the system-assigned managed identity for VM using the Azure portal.

Reference: <https://docs.microsoft.com/en-us/azure/active-directory/managed-identities-azure-resources/qsexpose-portal-windows-vm>

Question #39Topic 2

You have an Azure subscription that contains a resource group named TestRG.

You use TestRG to validate an Azure deployment.

TestRG contains the following resources:

Name	Type	Description
VM1	Virtual Machine	VM1 is running and configured to back up to Vault1 daily
Vault1	Recovery Services Vault	Vault1 includes all backups of VM1
VNET1	Virtual Network	VNET1 has a resource lock of type Delete

You need to delete TestRG. What should you do first?

- A. Modify the backup configurations of VM1 and modify the resource lock type of VNET1
- B. Remove the resource lock from VNET1 and delete all data in Vault1
- C. Turn off VM1 and remove the resource lock from VNET1
- D. Turn off VM1 and delete all data in Vault1

**Correct Answer:** *B*

When you delete a resource group, all of its resources are also deleted. Deleting a resource group deletes all of its template deployments and currently stored operations.

Reference: <https://docs.microsoft.com/en-us/azure/azure-resource-manager/management/delete-resourcegroup?tabs=azure-powershell>

Question #40 *Topic 2*

You have an Azure DNS zone named adatum.com.

You need to delegate a subdomain named research.adatum.com to a different DNS server in Azure. What should you do?

- A. Create an NS record named research in the adatum.com zone.
- B. Create a PTR record named research in the adatum.com zone.
- C. Modify the SOA record of adatum.com.
- D. Create an A record named \*.research in the adatum.com zone.

**Correct Answer:** *A*

You need to create a name server (NS) record for the zone.

Reference:

<https://docs.microsoft.com/en-us/azure/dns/delegate-subdomain>

Question #41 *Topic 2*

DRAG DROP -

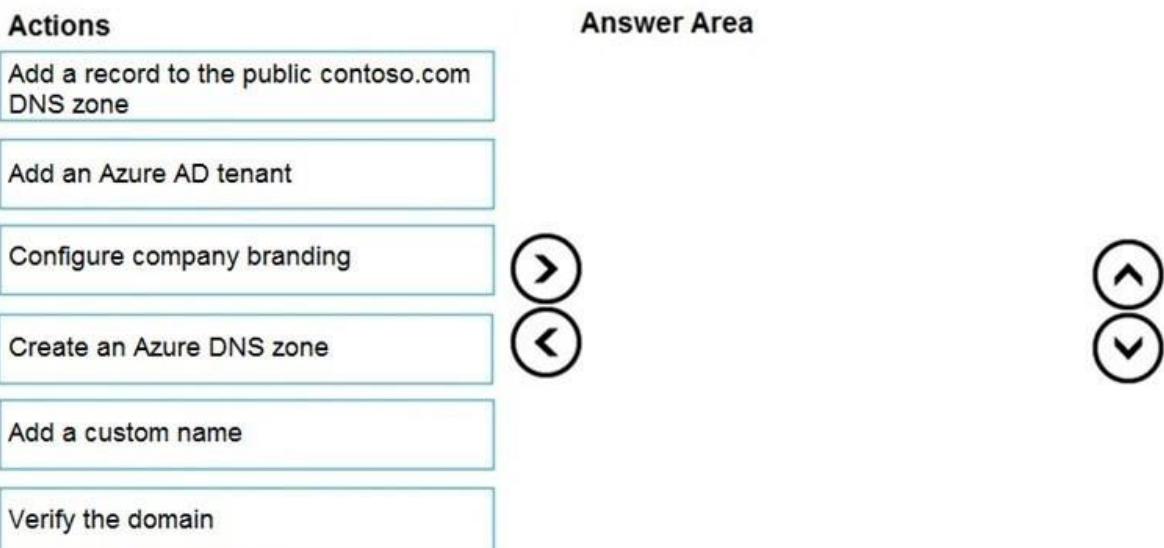
You have an Azure Active Directory (Azure AD) tenant that has the contoso.onmicrosoft.com domain name.

You have a domain name of contoso.com registered at a third-party registrar.

You need to ensure that you can create Azure AD users that have names containing a suffix of @contoso.com.

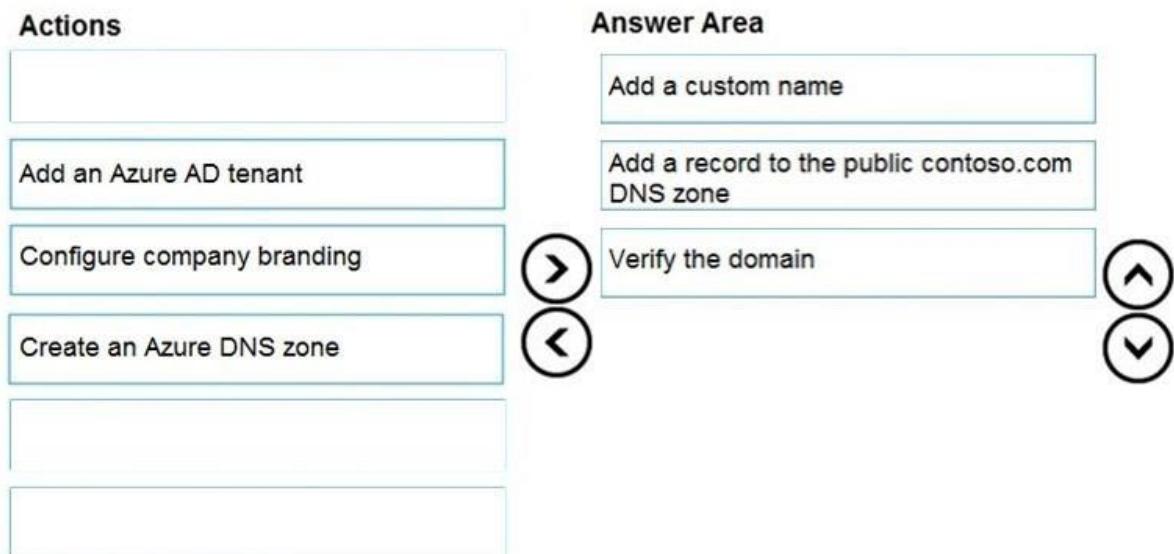
Which three actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.

Select and Place:



**Correct**

**Answer:**



1. Add the custom domain name to your directory
2. Add a DNS entry for the domain name at the domain name registrar
3. Verify the custom domain name in Azure AD Reference: <https://docs.microsoft.com/en-us/azure/dns/dns-web-sites-custom-domain>

Question #42Topic 2

You have an Azure subscription named Subscription1 that contains an Azure Log Analytics workspace named Workspace1.

You need to view the error events from a table named Event. Which query should you run in Workspace1?

- A. Get-Event Event | where {\$\_.EventType == "error"}
- B. Event | search "error"
- C. select \* from Event where EventType == "error"
- D. search in (Event) \* | where EventType == "error"

**Correct Answer: B**

The search operator provides a multi-table/multi-column search experience.

The syntax is:

Table\_name | search "search term" Note:

There are several versions of this question in the exam. The question has three possible correct answers:

1. search in (Event) "error"
2. Event | search "error"
3. Event | where EventType == "error"

Other incorrect answer options you may see on the exam include the following:

1. Get-Event Event | where {\$\_.EventType -eq "error"}
2. Event | where EventType is "error"
3. select \* from Event where EventType is "error" 4. search in (Event) \* | where EventType -eq "error"

Reference: <https://docs.microsoft.com/en-us/azure/azure-monitor/log-query/search-queries>

<https://docs.microsoft.com/en-us/azure/azure-monitor/log-query/get-started-portal>

<https://docs.microsoft.com/en-us/azure/data-explorer/kusto/query/searchoperator?pivots=azuredatadexplorer>

**Question #43 Topic 2**

You have a registered DNS domain named contoso.com.

You create a public Azure DNS zone named contoso.com.

You need to ensure that records created in the contoso.com zone are resolvable from the internet. What should you do?

- A. Create NS records in contoso.com.
- B. Modify the SOA record in the DNS domain registrar.
- C. Create the SOA record in contoso.com.
- D. Modify the NS records in the DNS domain registrar.

**Correct Answer: D**

Reference:

<https://docs.microsoft.com/en-us/azure/dns/dns-delegate-domain-azure-dns>

**Question #44 Topic 2**

HOTSPOT -

You have an Azure subscription that contains a storage account named storage1. The subscription is linked to an Azure Active Directory (Azure AD) tenant named contoso.com that syncs to an on-premises Active Directory domain.

The domain contains the security principals shown in the following table.

Name	Type
User1	User
Computer1	Computer

In Azure AD, you create a user named User2.

The storage1 account contains a file share named share1 and has the following configurations.

```

"kind": "StorageV2",
"properties": {
    "azureFilesIdentityBasedAuthentication": {
        "directoryServiceOptions": "AD",
        "activeDirectoryProperties": {
            "domainName": "Contoso.com",
            "netBiosDomainName": "Contoso.com",
            "forestName": "Contoso.com",
        }
    }
}

```

For each of the following statements, select Yes if the statement is true. Otherwise, select No. NOTE: Each correct selection is worth one point.

**Hot Area:**

**Answer Area**

Statements	Yes	No
You can assign the Storage File Data SMB Share Contributor role to User1 for share1.	<input type="radio"/>	<input type="radio"/>
You can assign the Storage File Data SMB Share Reader role to Computer1 for share1.	<input type="radio"/>	<input type="radio"/>
You can assign the Storage File Data SMB Share Elevated Contributor role to User2 for share1.	<input type="radio"/>	<input type="radio"/>

**Correct**

**Answer:**

**Answer Area**

Statements	Yes	No
You can assign the Storage File Data SMB Share Contributor role to User1 for share1.	<input checked="" type="radio"/>	<input type="radio"/>
You can assign the Storage File Data SMB Share Reader role to Computer1 for share1.	<input type="radio"/>	<input checked="" type="radio"/>
You can assign the Storage File Data SMB Share Elevated Contributor role to User2 for share1.	<input checked="" type="radio"/>	<input type="radio"/>

Reference: <https://docs.microsoft.com/en-us/azure/storage/files/storage-files-identity-ad-ds-assignpermissions?tabs=azure-portal>

Question #45 Topic 2

HOTSPOT -

You have an Azure subscription named Subscription1 that contains a virtual network VNet1.

You add the users in the following table.

User	Role
User1	Owner
User2	Security Admin
User3	Network Contributor

Which user can perform each configuration? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

### Answer Area

Add a subnet to VNet1:

User1 only
User3 only
User1 and User3 only
User2 and User3 only
User1, User2, and User3

Assign a user the Reader role to VNet1:

User1 only
User2 only
User3 only
User1 and User2 only
User2 and User3 only
User1, User2, and User3

Correct

Answer:

### Answer Area

Add a subnet to VNet1:

User1 only
User3 only
User1 and User3 only
User2 and User3 only
User1, User2, and User3

Assign a user the Reader role to VNet1:

User1 only
User2 only
User3 only
User1 and User2 only
User2 and User3 only
User1, User2, and User3

Box 1: User1 and User3 only.

User1: The Owner Role lets you manage everything, including access to resources.

User3: The Network Contributor role lets you manage networks, including creating subnets. Box 2: User1 only.

The Security Admin role: In Security Center only: Can view security policies, view security states, edit security policies, view alerts and recommendations, dismiss alerts and recommendations.

Reference:

<https://docs.microsoft.com/en-us/azure/role-based-access-control/built-in-roles>

<https://docs.microsoft.com/en-us/azure/role-based-access-control/resource-provideroperations#microsoftnetwork>

Question #46 Topic 2

HOTSPOT -

You have the Azure resources shown on the following exhibit.



Tenant Root Group



MG1



Sub1



RG1



VM1

You plan to track resource usage and prevent the deletion of resources.

To which resources can you apply locks and tags? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

### Answer Area

Locks:

RG1 and VM1 only
Sub1 and RG1 only
Sub1, RG1, and VM1 only
MG1, Sub1, RG1, and VM1 only
Tenant Root Group, MG1, Sub1, RG1, and VM1

Tags:

RG1 and VM1 only
Sub1 and RG1 only
Sub1, RG1, and VM1 only
MG1, Sub1, RG1, and VM1 only
Tenant Root Group, MG1, Sub1, RG1, and VM1



Correct

Answer:

JooGate.Com

## Answer Area

Locks:

RG1 and VM1 only
Sub1 and RG1 only
Sub1, RG1, and VM1 only
MG1, Sub1, RG1, and VM1 only
Tenant Root Group, MG1, Sub1, RG1, and VM1

Tags:

RG1 and VM1 only
Sub1 and RG1 only
Sub1, RG1, and VM1 only
MG1, Sub1, RG1, and VM1 only
Tenant Root Group, MG1, Sub1, RG1, and VM1

Box 1: Sub1, RG1, and VM1 only -

You can lock a subscription, resource group, or resource to prevent other users in your organization from accidentally deleting or modifying critical resources.

Box 2: Sub1, RG1, and VM1 only -

You apply tags to your Azure resources, resource groups, and subscriptions.

Reference: <https://docs.microsoft.com/en-us/azure/azure-resource-manager/management/lockresources?tabs=json> <https://docs.microsoft.com/en-us/azure/azure-resource-manager/management/tag-resources?tabs=json>

Question #47Topic 2

You have an Azure Active Directory (Azure AD) tenant.

You plan to delete multiple users by using Bulk delete in the Azure Active Directory admin center.

You need to create and upload a file for the bulk delete. Which user attributes should you include in the file?

- A. The user principal name and usage location of each user only
- B. The user principal name of each user only
- C. The display name of each user only
- D. The display name and usage location of each user only
- E. The display name and user principal name of each user only

**Correct Answer: B**

Reference:

<https://docs.microsoft.com/en-us/azure/active-directory/enterprise-users/users-bulk-delete>

Question #48 Topic 2 HOTSPOT

You have an Azure subscription named Sub1 that contains the Azure resources shown in the following table.

Name	Type
RG1	Resource group
storage1	Storage account
VNET1	Virtual network

You assign an Azure policy that has the following settings:

- Scope: Sub1
  - Exclusions: Sub1/RG1/VNET1
  - Policy definition: Append a tag and its value to resources
  - Policy enforcement: Enabled
  - Tag name: Tag4 □
- Tag value: value4

You assign tags to the resources as shown in the following table.

Resource	Tag
Sub1	Tag1:subscription
RG1	Tag2:IT
storage1	Tag3:value1
VNET1	Tag3:value2

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point. Hot Area:

### Answer Area

Statements	Yes	No
RG1 has the Tag2:IT tag assigned only	<input type="radio"/>	<input type="radio"/>
Storage1 has the Tag1:subscription, Tag2:IT, Tag3:value1, and Tag4:value4 tags assigned.	<input type="radio"/>	<input type="radio"/>
VNET1 has the Tag2:IT and Tag3:value2 tags assigned only	<input type="radio"/>	<input type="radio"/>

**Correct**

**Answer:**

## Answer Area

Statements	Yes	No
RG1 has the Tag2:IT tag assigned only	<input type="radio"/>	<input checked="" type="radio"/>
Storage1 has the Tag1:subscription, Tag2:IT, Tag3:value1, and Tag4:value4 tags assigned.	<input type="radio"/>	<input checked="" type="radio"/>
VNET1 has the Tag2:IT and Tag3:value2 tags assigned only	<input type="radio"/>	<input checked="" type="radio"/>

Box 1: No -

The Azure Policy will add Tag4 to RG1.

Box 2: No -

Tags applied to the resource group or subscription aren't inherited by the resources although you can enable inheritance with Azure Policy. Storage1 has Tag3:

Value1 and the Azure Policy will add Tag4.

Box 3: No -

Tags applied to the resource group or subscription aren't inherited by the resources so VNET1 does not have Tag2.

VNET1 has Tag3:value2. VNET1 is excluded from the Azure Policy so Tag4 will not be added to VNET1.

Reference: <https://docs.microsoft.com/en-us/azure/azure-resource-manager/management/tag-resources?tabs=json>

Question #49Topic 2

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You need to ensure that an Azure Active Directory (Azure AD) user named Admin1 is assigned the required role to enable Traffic Analytics for an Azure subscription.

Solution: You assign the Traffic Manager Contributor role at the subscription level to Admin1. Does this meet the goal?

- A. Yes
- B. No

**Correct Answer: B**

Reference:

<https://docs.microsoft.com/en-us/azure/network-watcher/traffic-analytics-faq>

Question #50Topic 2

You have three offices and an Azure subscription that contains an Azure Active Directory (Azure AD) tenant.

You need to grant user management permissions to a local administrator in each office. What should you use?

- A. Azure AD roles
- B. administrative units
- C. access packages in Azure AD entitlement management
- D. Azure roles

**Correct Answer:** B

Reference:

<https://docs.microsoft.com/en-us/azure/active-directory/roles/administrative-units>

Question #51 *Topic 2*

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have an Azure Directory (Azure AD) tenant named Adatum and an Azure Subscription named Subscription1. Adatum contains a group named Developers.

Subscription1 contains a resource group named Dev.

You need to provide the Developers group with the ability to create Azure logic apps in the Dev resource group.

Solution: On Dev, you assign the Logic App Contributor role to the Developers group. Does this meet the goal?

- A. Yes
- B. No

)

**Correct Answer:** A

Reference:

<https://docs.microsoft.com/en-us/azure/role-based-access-control/built-in-roles>

Question #52 *Topic 2*

HOTSPOT -

You have an Azure Load Balancer named LB1.

You assign a user named User1 the roles shown in the following exhibit.

## User1 assignments – LB1

Assignments for the selected user, group, service principal, or managed identity at this scope or inherited to this scope.

Search by assignment name or description

Role assignments (2) ⓘ

Role	D..	Scope	Group assignment
User Access Administrator	L...	This resource	--
Virtual Machine Contributor	L...	Resource group (inherited)	--

Use the drop-down menus to select the answer choice that completes each statement based on the information presented in the graphic.

NOTE: Each correct selection is worth one point.

Hot Area:

### Answer Area

User1 can [answer choice] LB1.

▼

delete
create a NAT rule for
assign access to other users for

User1 can [answer choice] the resource group.

▼

delete a virtual machine from
modify the load balancing rules in
deploy an Azure Kubernetes Service (AKS) cluster to

Correct

Answer:

### Answer Area

User1 can [answer choice] LB1.

▼

delete
create a NAT rule for
assign access to other users for

User1 can [answer choice] the resource group.

▼

delete a virtual machine from
modify the load balancing rules in
deploy an Azure Kubernetes Service (AKS) cluster to

Reference: <https://docs.microsoft.com/en-us/azure/role-based-access-control/built-in-roles#virtual-machinecontributor> <https://docs.microsoft.com/en-us/azure/role-based-access-control/rbac-and-directoryadmin-roles>

**Question #53 Topic 2**

You have an Azure subscription named Subscription1 that contains a virtual network named VNet1.

VNet1 is in a resource group named RG1.

Subscription1 has a user named User1. User1 has the following roles:

- Reader
- Security Admin
- Security Reader

You need to ensure that User1 can assign the Reader role for VNet1 to other users. What should you do?

- A. Remove User1 from the Security Reader role for Subscription1. Assign User1 the Contributor role for RG1.
- B. Assign User1 the Owner role for VNet1.
- C. Assign User1 the Contributor role for VNet1.
- D. Assign User1 the Network Contributor role for VNet1.

**Correct Answer: B**

Has full access to all resources including the right to delegate access to others.

Note:

There are several versions of this question in the exam. The question has two possible correct answers:

- Assign User1 the User Access Administrator role for VNet1.
- Assign User1 the Owner role for VNet1.

Other incorrect answer options you may see on the exam include the following:

- Remove User1 from the Security Reader and Reader roles for Subscription1. Assign User1 the Contributor role for Subscription1.
- Remove User1 from the Security Reader and Reader roles for Subscription1.
- Assign User1 the Network Contributor role for RG1.

References:

<https://docs.microsoft.com/en-us/azure/role-based-access-control/rbac-and-directory-admin-roles>  
<https://docs.microsoft.com/en-us/azure/role-based-access-control/overview>

**Question #54 Topic 2**

HOTSPOT -

You configure the custom role shown in the following exhibit.

```
{
  "properties": {
    "roleName": "role1",
    "description": "",
    "roletype": "true",
    "assignableScopes": [
      "/subscriptions/3d6209d5-c714-4440-9556e-d6342086c2d7/"
    ],
    "permissions": [
      {
        "actions": [
          "Microsoft.Authorization/*/read",
          "Microsoft.Compute/availabilitySets/*",
          "Microsoft.Compute/locations/*",
          "Microsoft.Compute/virtualMachines/*",
          "Microsoft.Compute/virtualMachineScaleSets/*",
          "Microsoft.Compute/disks/write",
          "Microsoft.Compute/disks/read",
          "Microsoft.Compute/disks/delete",
          "Microsoft.Network/locations/*",
          "Microsoft.Network/networkInterfaces/*",
          "Microsoft.Network/networkSecurityGroups/join/action",
          "Microsoft.Network/networkSecurityGroups/read",
          "Microsoft.Network/publicIPAddresses/join/action",
          "Microsoft.Network/publicIPAddresses/read",
          "Microsoft.Network/virtualNetworks/read",
          "Microsoft.Network/virtualNetworks/subnets/join/action",
          "Microsoft.Resources/deployments/*",
          "Microsoft.Resources/subscriptions/resourceGroups/read",
          "Microsoft.Support/*"
        ],
        "notActions": [],
        "dataActions": [],
        "notDataActions": []
      }
    ]
  }
}
```

Use the drop-down menus to select the answer choice that completes each statement based on the information presented in the graphic.

NOTE: Each correct selection is worth one point.

Hot Area:

## Answer Area

To ensure that users can sign in to virtual machines that are assigned role1, modify the [answer choice] section

▼
actions
roletype
notActions
dataActions
notDataActions
assignableScopes

To ensure that role1 can be assigned only to a resource group named RG1, modify the [answer choice] section

▼
actions
roletype
notActions
dataActions
notDataActions
assignableScopes

Correct

Answer:

## Answer Area

To ensure that users can sign in to virtual machines that are assigned role1, modify the [answer choice] section

▼
actions
roletype
notActions
dataActions
notDataActions
assignableScopes

To ensure that role1 can be assigned only to a resource group named RG1, modify the [answer choice] section

▼
actions
roletype
notActions
dataActions
notDataActions
assignableScopes

Box 1: roletype -

You need to configure Azure RBAC policy to determine who can log in to the VM. Two Azure roles are used to authorize VM login:

Virtual Machine Administrator Login: Users with this role assigned can log in to an Azure virtual machine with administrator privileges.

Virtual Machine User Login: Users with this role assigned can log in to an Azure virtual machine with regular user privileges. Note, example roletype:

```
"roleName": "Virtual Machine Administrator Login",
"roleType": "BuiltInRole",
"type": "Microsoft.Authorization/roleDefinitions"
```

Box 2: assignableScopes -

Azure role-based access control (Azure RBAC) is the authorization system you use to manage access to Azure resources. To grant access, you assign roles to users, groups, service principals, or managed identities at a particular scope.

When you assign roles, you must specify a scope. Scope is the set of resources the access applies to. In Azure, you can specify a scope at four levels from broad to narrow: management group, subscription, resource group, and resource.

Reference: <https://docs.microsoft.com/en-us/azure/active-directory/devices/howto-vm-sign-in-azure-ad-windows> <https://docs.microsoft.com/en-us/azure/role-based-access-control/built-in-roles>  
<https://docs.microsoft.com/en-us/azure/role-based-access-control/role-assignments-portal>

Question #55Topic 2

You have an Azure subscription that contains a storage account named storage1. The storage1 account contains a file share named share1.

The subscription is linked to a hybrid Azure Active Directory (Azure AD) tenant that contains a security group named Group1.

You need to grant Group1 the Storage File Data SMB Share Elevated Contributor role for share1. What should you do first?

- A. Enable Active Directory Domain Service (AD DS) authentication for storage1.
- B. Grant share-level permissions by using File Explorer.
- C. Mount share1 by using File Explorer.
- D. Create a private endpoint.

Correct Answer: A

Before you enable Azure AD over SMB for Azure file shares, make sure you have completed the following prerequisites:

1. Select or create an Azure AD tenant.
2. To support authentication with Azure AD credentials, you must enable Azure AD Domain Services for your Azure AD tenant.

Etc.

Note: The Storage File Data SMB Share Elevated Contributor allows read, write, delete and modify NTFS permissions in Azure Storage file shares over SMB.

Reference: <https://docs.microsoft.com/en-us/azure/storage/files/storage-files-identity-auth-active-directorydomain-service-enable>

Question #56Topic 2

You have 15 Azure subscriptions.

You have an Azure Active Directory (Azure AD) tenant that contains a security group named Group1.

You plan to purchase additional Azure subscription.

You need to ensure that Group1 can manage role assignments for the existing subscriptions and the planned subscriptions. The solution must meet the following requirements:

- ⇒ Use the principle of least privilege.
- ⇒ Minimize administrative effort. What should you do?

- A. Assign Group1 the Owner role for the root management group.
- B. Assign Group1 the User Access Administrator role for the root management group.
- C. Create a new management group and assign Group1 the User Access Administrator role for the group.
- D. Create a new management group and assign Group1 the Owner role for the group.

**Correct Answer: B**

The User Access Administrator role enables the user to grant other users access to Azure resources. This switch can be helpful to regain access to a subscription.

Management groups give you enterprise-grade management at scale no matter what type of subscriptions you might have.

Each directory is given a single top-level management group called the "Root" management group. This root management group is built into the hierarchy to have all management groups and subscriptions fold up to it. This root management group allows for global policies and Azure role assignments to be applied at the directory level.

Incorrect:

Not C: A few directories that started using management groups early in the preview before June 25 2018 could see an issue where not all the subscriptions were within the hierarchy. The process to have all subscriptions in the hierarchy was put in place after a role or policy assignment was done on the root management group in the directory.

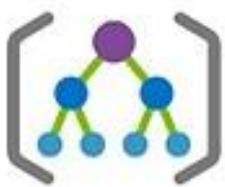
Reference: <https://docs.microsoft.com/en-us/azure/role-based-access-control/rbac-and-directory-admin-roles>

<https://docs.microsoft.com/en-us/azure/governance/management-groups/overview>

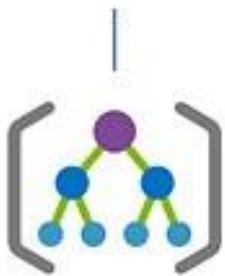
Question #57 *Topic 2*

HOTSPOT -

You have an Azure subscription that contains the hierarchy shown in the following exhibit.



Tenant Root Group



ManagementGroup1



Subscription1



RG1



VM1

You create an Azure Policy definition named Policy1.

To which Azure resources can you assign Policy1 and which Azure resources can you specify as exclusions from Policy1? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point. Hot

Area:

**Answer Area**

You can assign Policy1 to:

- Subscription1 and RG1 only
- ManagementGroup1 and Subscription1 only
- Tenant Root Group, ManagementGroup1, and Subscription1 only
- Tenant Root Group, ManagementGroup1, Subscription1, and RG1 only
- Tenant Root Group, ManagementGroup1, Subscription1, RG1, and VM1

You can exclude Policy1 from:

- VM1 only
- RG1 and VM1 only
- Subscription1, RG1, and VM1 only
- ManagementGroup1, Subscription1, RG1, and VM1 only
- Tenant Root Group, ManagementGroup1, Subscription1, RG1, and VM1

**Correct**

**Answer:**

**Answer Area**

You can assign Policy1 to:

- Subscription1 and RG1 only
- ManagementGroup1 and Subscription1 only
- Tenant Root Group, ManagementGroup1, and Subscription1 only
- Tenant Root Group, ManagementGroup1, Subscription1, and RG1 only
- Tenant Root Group, ManagementGroup1, Subscription1, RG1, and VM1

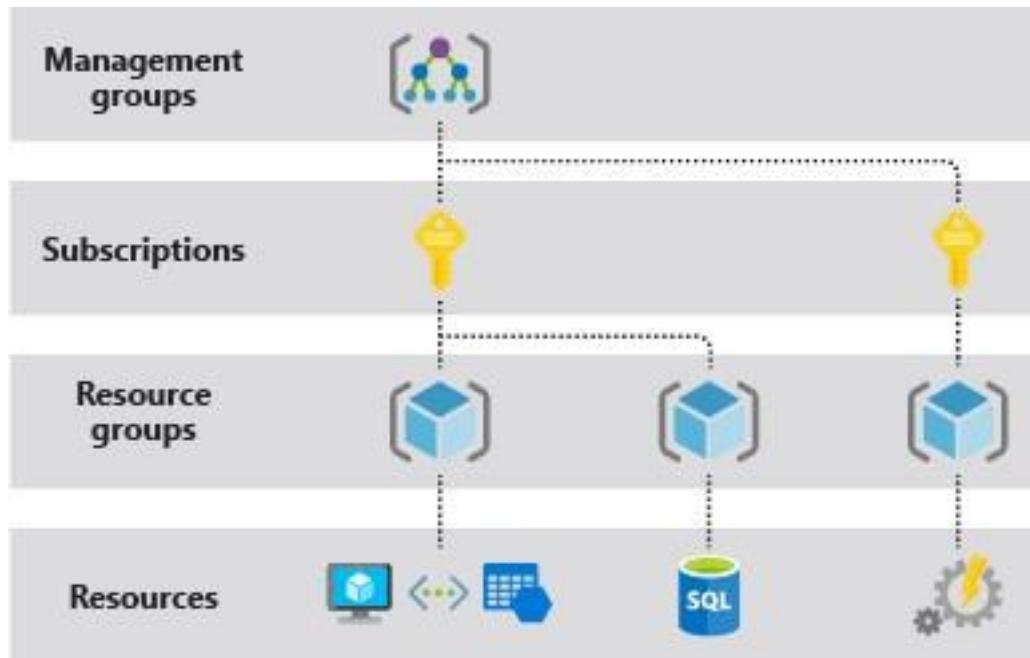
You can exclude Policy1 from:

- VM1 only
- RG1 and VM1 only
- Subscription1, RG1, and VM1 only
- ManagementGroup1, Subscription1, RG1, and VM1 only
- Tenant Root Group, ManagementGroup1, Subscription1, RG1, and VM1

Box 1: Tenant Root Group, ManagementGroup1, Subscription1, RG1, and VM1

Once your business rules have been formed, the policy definition or initiative is assigned to any scope of resources that Azure supports, such as management groups, subscriptions, resource groups, or individual resources.

Note: Azure provides four levels of scope: management groups, subscriptions, resource groups, and resources. The following image shows an example of these layers.



Box 2: ManagementGroup1, Subscription1, RG1, and VM1 You can exclude a subscope from the assignment.

Reference: <https://docs.microsoft.com/en-us/azure/azure-resource-manager/management/overview>

Question #58Topic 2

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have an Azure subscription that contains the following users in an Azure Active Directory tenant named contoso.onmicrosoft.com:

Name	Role	Scope
User1	Global administrator	Azure Active Directory
User2	Global administrator	Azure Active Directory
User3	User administrator	Azure Active Directory
User4	Owner	Azure Subscription

User1 creates a new Azure Active Directory tenant named external.contoso.onmicrosoft.com.

You need to create new user accounts in external.contoso.onmicrosoft.com.

Solution: You instruct User2 to create the user accounts. Does that meet the goal?

- A. Yes
- B. No

**Correct Answer:B**

Only a global administrator can add users to this tenant.

Reference:

<https://docs.microsoft.com/en-us/azure/devops/organizations/accounts/add-users-to-azure-ad>

**Question #59Topic 2**

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have an Azure subscription that contains the following users in an Azure Active Directory tenant named contoso.onmicrosoft.com:

Name	Role	Scope
User1	Global administrator	Azure Active Directory
User2	Global administrator	Azure Active Directory
User3	User administrator	Azure Active Directory
User4	Owner	Azure Subscription

User1 creates a new Azure Active Directory tenant named external.contoso.onmicrosoft.com.

You need to create new user accounts in external.contoso.onmicrosoft.com.

Solution: You instruct User4 to create the user accounts. Does that meet the goal?

- A. Yes
- B. No

**Correct Answer: B**

Only a global administrator can add users to this tenant.

Reference:

<https://docs.microsoft.com/en-us/azure/devops/organizations/accounts/add-users-to-azure-ad>

**Question #60Topic 2**

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have an Azure subscription that contains the following users in an Azure Active Directory tenant named contoso.onmicrosoft.com:

Name	Role	Scope
User1	Global administrator	Azure Active Directory
User2	Global administrator	Azure Active Directory
User3	User administrator	Azure Active Directory
User4	Owner	Azure Subscription

User1 creates a new Azure Active Directory tenant named external.contoso.onmicrosoft.com.

You need to create new user accounts in external.contoso.onmicrosoft.com.

Solution: You instruct User3 to create the user accounts. Does that meet the goal?

- A. Yes

- B. No

**Correct Answer: B**

Only a global administrator can add users to this tenant.

Reference:

<https://docs.microsoft.com/en-us/azure/devops/organizations/accounts/add-users-to-azure-ad>

**Question #61 Topic 2**

You have two Azure subscriptions named Sub1 and Sub2.

An administrator creates a custom role that has an assignable scope to a resource group named RG1 in Sub1.

You need to ensure that you can apply the custom role to any resource group in Sub1 and Sub2. The solution must minimize administrative effort. What should you do?

- A. Select the custom role and add Sub1 and Sub2 to the assignable scopes. Remove RG1 from the assignable scopes.
- B. Create a new custom role for Sub1. Create a new custom role for Sub2. Remove the role from RG1.
- C. Create a new custom role for Sub1 and add Sub2 to the assignable scopes. Remove the role from RG1.
- D. Select the custom role and add Sub1 to the assignable scopes. Remove RG1 from the assignable scopes. Create a new custom role for Sub2.

**Correct Answer: A** Can

be used as:

```
"AssignableScopes": [
  "/subscriptions/{Sub1}",
  "/subscriptions/{Sub2}",
```

Note: Custom role example:

The following shows what a custom role looks like as displayed using Azure PowerShell in JSON format. This custom role can be used for monitoring and restarting virtual machines.

```
{
  "Name": "Virtual Machine Operator",
  "Id": "88888888-8888-8888-8888-888888888888",
  "IsCustom": true,
  "Description": "Can monitor and restart virtual machines.",
  "Actions": [
    "Microsoft.Storage/*/read",
    "Microsoft.Network/*/read",
    "Microsoft.Compute/*/read",
    "Microsoft.Compute/virtualMachines/start/action",
    "Microsoft.Compute/virtualMachines/restart/action",
    "Microsoft.Authorization/*/read",
    "Microsoft.ResourceHealth/availabilityStatuses/read",
    "Microsoft.Resources/subscriptions/resourceGroups/read",
    "Microsoft.Insights/alertRules/*",
    "Microsoft.Insights/diagnosticSettings/*",
    "Microsoft.Support/*"
  ],
}
```

```

"NotActions": [],
"DataActions": [],
"NotDataActions": [],
"AssignableScopes": [
  "/subscriptions/{subscriptionId1}",
  "/subscriptions/{subscriptionId2}",
  "/providers/Microsoft.Management/managementGroups/{groupId1}"
]
}

```

Reference:

<https://docs.microsoft.com/en-us/azure/role-based-access-control/custom-roles>

### Question #62Topic 2

You have an Azure Subscription that contains a storage account named storageacct1234 and two users named User1 and User2.

You assign User1 the roles shown in the following exhibit.

**User1 assignments – storageacct1234**

Assignments for the selected user, group, service principal, or managed identity at this scope or inherited to this scope.

Search by assignment name or description

Role assignments (2) ⓘ

Role	Scope	Group assignment	Condition
Reader	Resource group (inherited)	--	None
Storage Blob Data Contributor	This resource	--	Add

Deny assignments (0) ⓘ

Classic administrators (0) ⓘ

Which two actions can User1 perform? Each correct answer presents a complete solution. NOTE: Each correct selection is worth one point.

- A. Assign roles to User2 for storageacct1234.
- B. Upload blob data to storageacct1234.
- C. Modify the firewall of storageacct1234.
- D. View blob data in storageacct1234.
- E. View file shares in storageacct1234.

**Correct Answer:**BD

### Question #63Topic 2

You have an Azure subscription named Subscription1 that contains an Azure Log Analytics workspace named Workspace1.

You need to view the error events from a table named Event.

Which query should you run in Workspace1?

- A. select \* from Event where EventType == "error"
- B. Event | search "error"
- C. Event | where EventType is "error"
- D. Get-Event Event | where {\$\_.EventType == "error"}

**Correct Answer:** B

Question #64 *Topic 2*

You have an Azure App Services web app named App1.

You plan to deploy App1 by using Web Deploy.

You need to ensure that the developers of App1 can use their Azure AD credentials to deploy content to App1. The solution must use the principle of least privilege.

What should you do?

- A. Assign the Owner role to the developers
- B. Configure app-level credentials for FTPS
- C. Assign the Website Contributor role to the developers
- D. Configure user-level credentials for FTPS

**Correct Answer:**C

Question #65 *Topic 2*

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have an Azure Active Directory (Azure AD) tenant named contoso.com.

You have a CSV file that contains the names and email addresses of 500 external users.

You need to create a guest user account in contoso.com for each of the 500 external users.

Solution: From Azure AD in the Azure portal, you use the Bulk invite users operation.

Does this meet the goal?

- A. Yes
- B. No

**Correct Answer:** B

Question #66 Topic 2

HOTSPOT

You have an Azure subscription that is linked to an Azure AD tenant. The tenant contains the custom rolebased access control (RBAC) roles shown in the following table.

Name	Description
Role1	Azure subscription role
Role2	Azure AD role

From the Azure portal, you need to create two custom roles named Role3 and Role4. Role3 will be an Azure subscription role. Role4 will be an Azure AD role.

Which roles can you clone to create the new roles? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

**Answer Area**

Role3:

- Role1 only
- Built-in Azure subscription roles only
- Role1 and built-in Azure subscription roles only
- Built-in Azure subscription roles and built-in Azure AD roles only
- Role1, Role2, built-in Azure subscription roles, and built-in Azure AD roles**

Role4:

- Role2 only
- Built-in Azure AD roles only
- Role2 and built-in Azure AD roles only
- Built-in Azure AD roles and built-in Azure subscription roles only
- Role1, Role2, built-in Azure AD, and built-in Azure subscription roles**

**Correct**

**Answer:**

## Answer Area

Role3:

- Role1 only
- Built-in Azure subscription roles only
- Role1 and built-in Azure subscription roles only**
- Built-in Azure subscription roles and built-in Azure AD roles only
- Role1, Role2, built-in Azure subscription roles, and built-in Azure AD roles**

Role4:

- Role2 only
- Built-in Azure AD roles only**
- Role2 and built-in Azure AD roles only
- Built-in Azure AD roles and built-in Azure subscription roles only
- Role1, Role2, built-in Azure AD, and built-in Azure subscription roles**

Question #67Topic 2

DRAG DROP

-

You have an Azure subscription named Sub1 that contains two users named User1 and User2.

You need to assign role-based access control (RBAC) roles to User1 and User2. The users must be able to perform the following tasks in Sub1:

- User1 must view the data in any storage account.
- User2 must assign users the Contributor role for storage accounts.

The solution must use the principle of least privilege.

Which RBAC role should you assign to each user? To answer, drag the appropriate roles to the correct users. Each role may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.

NOTE: Each correct selection is worth one point.

## RBAC roles

- Owner
- Contributor
- Reader and Data Access
- Storage Account Contributor

## Answer Area

User1:

User2:

## Answer Area

User1: Reader and Data Access

User2: Owner

**Correct Answer:**

Question #68Topic 2

You have an Azure subscription that contains 10 virtual machines, a key vault named Vault1, and a network security group (NSG) named NSG1. All the resources are deployed to the East US Azure region.

The virtual machines are protected by using NSG1. NSG1 is configured to block all outbound traffic to the internet.

You need to ensure that the virtual machines can access Vault1. The solution must use the principle of least privilege and minimize administrative effort

What should you configure as the destination of the outbound security rule for NSG1?

- A. an application security group
- B. a service tag
- C. an IP address range

**Correct Answer: B**

Question #69Topic 2

You have an Azure AD tenant named adatum.com that contains the groups shown in the following table.

Name	Member of
Group1	None
Group2	Group1
Group3	Group2

Adatum.com contains the users shown in the following table.

Name	Member of
User1	Group1
User2	Group2
User3	Group3
User4	None

You assign the Azure Active Directory Premium Plan 2 license to Group1 and User4.

Which users are assigned the Azure Active Directory Premium Plan 2 license?

- A. User4 only
- B. User1 and User4 only
- C. User1, User2, and User4 only
- D. User1, User2, User3, and User4

**Correct Answer:** B

Question #70Topic 2

HOTSPOT

You have an Azure AD tenant named contoso.com.

You have two external partner organizations named fabrikam.com and litwareinc.com. Fabrikam.com is configured as a connected organization.

You create an access package as shown in the Access package exhibit. (Click the Access package tab.)



## New access package

\* Basics    Resource roles    \* Requests    Requestor information    \*Lifecycle    Review + Create

Summary of access package configuration

### Basics

Name	package1
Description	Guest users
Catalog name	General

### Resource roles

Resource	Type	Sub Type	Role
Group1	Group and Team	Security Group	Member

### Requests

Users who can request access	All configured connected organizations
Require approval	No
Enabled	Yes

### Requestor information

#### Questions

Question	Answer format	Multiple choice optio...	Required

#### Attributes (Preview)

Attribute type	Attribute	Default display string	Answer format	Multi

### Lifecycle

Access package assignments expire	After 365 days
Require access reviews	No

You configure the external user lifecycle settings as shown in the Lifecycle exhibit. (Click the Lifecycle tab.)

#### Manage the lifecycle of external users

Select what happens when an external user, who was added to your directory through an access package request, loses their last assignment to any access package.

Block external user from signing in to this directory  Yes  No

Remove external user  Yes  No

Number of days before removing external user from this directory

#### Delegate entitlement management

By default, only Global Administrators and User Administrators can create and manage catalogs, and can manage all catalogs. Users added to entitlement management as Catalog creators can also create catalogs and will become the owner of any catalogs they create.

Catalog creators (1) 0 selected

Add catalog creators

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point.

Statements	Yes	No
Litwareinc.com users can be assigned to package1.	<input type="radio"/>	<input type="radio"/>
After 365 days, fabrikam.com users will be removed from Group1.	<input type="radio"/>	<input type="radio"/>
After 395 days, fabrikam.com users will be removed from the contoso.com tenant.	<input type="radio"/>	<input type="radio"/>

**Correct**

**Answer:**

Statements	Yes	No
Litwareinc.com users can be assigned to package1.	<input checked="" type="checkbox"/>	<input type="radio"/>
After 365 days, fabrikam.com users will be removed from Group1.	<input type="radio"/>	<input checked="" type="checkbox"/>
After 395 days, fabrikam.com users will be removed from the contoso.com tenant.	<input checked="" type="checkbox"/>	<input type="radio"/>

**Question #71 Topic 2**

You have an Azure subscription named Subscription1 that contains a virtual network named VNet1. VNet1 is in a resource group named RG1.

Subscription1 has a user named User1. User1 has the following roles:

- Reader
- Security Admin
- Security Reader

You need to ensure that User1 can assign the Reader role for VNet1 to other users.

What should you do?

- A. Assign User1 the Network Contributor role for VNet1.
- B. Remove User1 from the Security Reader role for Subscription1. Assign User1 the Contributor role for RG1.
- C. Assign User1 the Owner role for VNet1.
- D. Assign User1 the Network Contributor role for RG1.

**Correct Answer: C**

**Question #72 Topic 2**

## HOTSPOT

You have an Azure subscription that contains the users shown in the following table.

Name	Member of
User1	Group1
User2	Group2
User3	Group3

The groups are configured as shown in the following table.

Name	Type	Azure AD roles can be assigned to the group
Group1	Security	Yes
Group2	Security	Yes
Group3	Microsoft 365	Yes

You have a resource group named RG1 as shown in the following exhibit.

The screenshot shows the 'RG1 | Access control (IAM)' blade. On the left, there's a sidebar with links like Overview, Activity log, Access control (IAM), Tags, Resource visualizer, Events, Deployments, Security, Policies, Properties, and Locks. The 'Access control (IAM)' link is highlighted. The main area has tabs for Check access, Role assignments (which is selected), Roles, Deny assignments, and Classic administ. Below the tabs, it says 'Number of role assignments for this subscription' with values 2 and 2000. There are filters for Search by name or email, Type : All, Role : All, and Scope : All sc. A table lists 2 items (1 Users, 1 Groups):

Name	Type	Role	Scope	Condition
GR	Group	Owner	This resource	None
PR	User	Owner	Subscription (Inherited)	None

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point.

**Answer Area**

Statements	Yes	No
You can assign User2 the Owner role for RG1 by adding Group2 as a member of Group1.	<input type="radio"/>	<input type="radio"/>
You can assign User3 the Owner role for RG1 by adding Group3 as a member of Group1.	<input type="radio"/>	<input type="radio"/>
You can assign User3 the Owner role for RG1 by assigning the Owner role to Group3 for	<input type="radio"/>	<input type="radio"/>

**Correct Answer:**

**Answer Area**

Statements	Yes	No
You can assign User2 the Owner role for RG1 by adding Group2 as a member of Group1.	<input type="radio"/>	<input checked="" type="checkbox"/>
You can assign User3 the Owner role for RG1 by adding Group3 as a member of Group1.	<input type="radio"/>	<input checked="" type="checkbox"/>
You can assign User3 the Owner role for RG1 by assigning the Owner role to Group3 for	<input checked="" type="checkbox"/>	<input type="radio"/>

**Question #73Topic 2**

You have an Azure subscription named Subscription1 that contains a virtual network named VNet1. VNet1 is in a resource group named RG1.

Subscription1 has a user named User1. User1 has the following roles:

- Reader
- Security Admin
- Security Reader

You need to ensure that User1 can assign the Reader role for VNet1 to other users.

What should you do?

- A. Remove User1 from the Security Reader role for Subscription 1. Assign User1 the Contributor role for RG1.
- B. Assign User1 the Owner role for VNet1.
- C. Remove User1 from the Security Reader and Reader roles for Subscription1. Assign User1 the Contributor role for Subscription 1.
- D. Assign User1 the Contributor role for VNet1.

**Correct Answer: B**

**Question #74Topic 2**

Your on-premises network contains a VPN gateway.

You have an Azure subscription that contains the resources shown in the following table.

Name	Type	Description
vgw1	Virtual network gateway	Gateway for Site-to-Site VPN to the on-premises network
storage1	Storage account	Standard performance tier
Vnet1	Virtual network	Enabled forced tunneling
VM1	Virtual machine	Connected to Vnet1

You need to ensure that all the traffic from VM1 to storage1 travels across the Microsoft backbone network.

What should you configure?

- A. Azure Application Gateway
- B. private endpoints
- C. a network security group (NSG)
- D. Azure Virtual WAN

**Correct Answer:** B

Question #75 Topic 2

HOTSPOT

You have an Azure subscription that contains a user named User1 and the resources shown in the following table.

Name	Type
RG1	Resource group
networkinterface1	Virtual network interface
NSG1	Network security group (NSG)

NSG1 is associated to networkinterface1.

User1 has role assignments for NSG1 as shown in the following table.

Role	Scope
Contributor	This resource
Reader	Subscription (Inherited)
Storage Account Contributor	Resource group (Inherited)

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point.

**Answer Area**

Statements	Yes	No
User1 can create a storage account in RG1.	<input type="radio"/>	<input type="radio"/>
User1 can modify the DNS settings of networkinterface1.	<input type="radio"/>	<input type="radio"/>
User1 can create an inbound security rule to filter inbound traffic to networkinterface1.	<input type="radio"/>	<input type="radio"/>

**Correct**

**Answer:**

**Answer Area**

Statements	Yes	No
User1 can create a storage account in RG1.	<input checked="" type="radio"/>	<input type="radio"/>
User1 can modify the DNS settings of networkinterface1.	<input type="radio"/>	<input checked="" type="radio"/>
User1 can create an inbound security rule to filter inbound traffic to networkinterface1.	<input checked="" type="radio"/>	<input type="radio"/>

**Question #76Topic 2**

You have an Azure subscription named Subscription1 that contains a virtual network named VNet1. VNet1 is in a resource group named RG1.

Subscription1 has a user named User1. User1 has the following roles:

- Reader
- Security Admin
- Security Reader

You need to ensure that User1 can assign the Reader role for VNet1 to other users.

What should you do?

- A. Remove User1 from the Security Reader role for Subscription1. Assign User1 the Contributor role for RG1.
- B. Assign User1 the Access Administrator role for VNet1.
- C. Remove User1 from the Security Reader and Reader roles for Subscription1. Assign User1 the Contributor role for Subscription1.
- D. Assign User1 the Network Contributor role for RG1.

**Correct Answer: B**

**Question #77Topic 2**

## HOTSPOT

---

You have three Azure subscriptions named Sub1, Sub2, and Sub3 that are linked to an Azure AD tenant.

The tenant contains a user named User1, a security group named Group1, and a management group named MG1. User is a member of Group1.

Sub1 and Sub2 are members of MG1. Sub1 contains a resource group named RG1. RG1 contains five Azure functions.

You create the following role assignments for MG1:

- Group1: Reader
- User1: User Access Administrator

You assign User the Virtual Machine Contributor role for Sub1 and Sub2.

### Answer Area

Statements	Yes	No
The Group1 members can view the configurations of the Azure functions.	<input type="radio"/>	<input type="radio"/>
User1 can assign the Owner role for RG1.	<input type="radio"/>	<input type="radio"/>
User1 can create a new resource group and deploy a virtual machine to the new group.	<input type="radio"/>	<input type="radio"/>

### Correct

Answer:

### Answer Area

Statements	Yes	No
The Group1 members can view the configurations of the Azure functions.	<input checked="" type="radio"/>	<input type="radio"/>
User1 can assign the Owner role for RG1.	<input checked="" type="radio"/>	<input type="radio"/>
User1 can create a new resource group and deploy a virtual machine to the new group.	<input type="radio"/>	<input checked="" type="radio"/>

### Question #78Topic 2

You have an Azure subscription that contains the resources shown in the following table.

Name	Description
share1	File share in storage1
storage1	Storage account
User1	Azure AD user

You need to assign User1 the Storage File Data SMB Share Contributor role for share1.

What should you do first?

- A. Enable identity-based data access for the file shares in storage1.
- B. Modify the security profile for the file shares in storage1.
- C. Select Default to Azure Active Directory authorization in the Azure portal for storage1.
- D. Configure Access control (IAM) for share1.

**Correct Answer:** D

Question #79 *Topic 2*

You have an Azure subscription named Subscription1 that contains a virtual network named VNet1. VNet1 is in a resource group named RG1.

Subscription1 has a user named User1. User1 has the following roles:

- Reader
- Security Admin
- Security Reader

You need to ensure that User1 can assign the Reader role for VNet1 to other users.

What should you do?

- A. Remove User1 from the Security Reader role for Subscription1. Assign User1 the Contributor role for RG1.
- B. Assign User1 the User Access Administrator role for VNet1.
- C. Remove User1 from the Security Reader and Reader roles for Subscription1.
- D. Assign User1 the Contributor role for VNet1.

**Correct Answer:** B

**Topic 3 - Question Set 3**

Question #1 *Topic 3*

You have an Azure subscription named Subscription1 that contains the storage accounts shown in the following table:

Name	Account kind	Azure service that contains data
storage1	Storage	File
storage2	StorageV2 (general purpose v2)	File, Table
storage3	StorageV2 (general purpose v2)	Queue
storage4	BlobStorage	Blob

You plan to use the Azure Import/Export service to export data from Subscription1.

You need to identify which storage account can be used to export the data. What should you identify?

- A. storage1
- B. storage2
- C. storage3
- D. storage4

#### Correct Answer: D

Azure Import/Export service supports the following of storage accounts:

- Standard General Purpose v2 storage accounts (recommended for most scenarios)
- Blob Storage accounts
- General Purpose v1 storage accounts (both Classic or Azure Resource Manager deployments), Azure Import/Export service supports the following storage types:

□ Import supports Azure Blob storage and Azure File storage

□ Export supports Azure Blob storage Reference:

<https://docs.microsoft.com/en-us/azure/storage/common/storage-import-export-requirements>

#### Question #2 Topic 3

HOTSPOT -

You have Azure Storage accounts as shown in the following exhibit.

The screenshot shows the Azure Storage accounts blade. At the top, there's a header bar with 'Home > Storage accounts' and a title 'Storage accounts'. Below the header are several buttons: '+ Add', 'Edit columns', 'Refresh', 'Assign Tags', and 'Delete'. A message 'Subscription: All 2 selected - Don't see a subscription? Switch directories' is displayed. Below these are filter buttons: 'Filter by home...', 'All subscriptions', 'All resource groups', 'All types', 'All locations', 'No grouping'. A table titled '3 items' lists three storage accounts:

NAME	TYPE	KIND	RESOURCE...	LOCATION	SUBSCRIPTION	ACCESS T...	REPLICAT...
storageaccount1	Storage account	Storage	ContosoRG1	East US	Subscription 1	-	Read-access ge...
storageaccount2	Storage account	StorageV2	ContosoRG1	Central US	Subscription 1	Hot	Geo-redundant...
storageaccount3	Storage account	BlobStorage	ContosoRG1	East US	Subscription 1	Hot	Locally-redundant...

Use the drop-down menus to select the answer choice that completes each statement based on the information presented in the graphic.

NOTE: Each correct selection is worth one point.

Hot Area:

### Answer Area

You can use [answer choice] for Azure Table Storage.

storageaccount1 only
storageaccount2 only
storageaccount3 only
storageaccount1 and storageaccount2 only
storageaccount2 and storageaccount3 only

You can use [answer choice] for Azure Blob storage.

storageaccount3 only
storageaccount2 and storageaccount3 only
storageaccount1 and storageaccount3 only
all the storage accounts

Correct Answer:

### Answer Area

You can use [answer choice] for Azure Table Storage.

storageaccount1 only
storageaccount2 only
storageaccount3 only
storageaccount1 and storageaccount2 only
storageaccount2 and storageaccount3 only

You can use [answer choice] for Azure Blob storage.

storageaccount3 only
storageaccount2 and storageaccount3 only
storageaccount1 and storageaccount3 only
all the storage accounts

Box 1: storageaccount1 and storageaccount2 only

Box 2: All the storage accounts -

Note: The three different storage account options are: General-purpose v2 (GPv2) accounts, Generalpurpose v1 (GPv1) accounts, and Blob storage accounts.

- General-purpose v2 (GPv2) accounts are storage accounts that support all of the latest features for blobs, files, queues, and tables.
- Blob storage accounts support all the same block blob features as GPv2, but are limited to supporting only block blobs.
- General-purpose v1 (GPv1) accounts provide access to all Azure Storage services, but may not have the latest features or the lowest per gigabyte pricing.

Reference: <https://docs.microsoft.com/en-us/azure/storage/common/storage-account-options>

Question #3Topic 3

You have Azure subscription that includes data in following locations:

Name	Type
container1	Blob container
share1	Azure files share
DB1	SQL database
Table1	Azure Table

You plan to export data by using Azure import/export job named Export1.

You need to identify the data that can be exported by using Export1. Which data should you identify?

- A. DB1
- B. container1
- C. share1
- D. Table1

)

**Correct Answer:** B

Question #4 *Topic 3*

HOTSPOT -

You have an Azure Storage account named storage1.

You have an Azure App Service app named App1 and an app named App2 that runs in an Azure container instance. Each app uses a managed identity.

You need to ensure that App1 and App2 can read blobs from storage1. The solution must meet the following requirements:

- Minimize the number of secrets used.
- Ensure that App2 can only read from storage1 for the next 30 days.

What should you configure in storage1 for each app? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

## Answer Area

App1:

Access keys
Advanced security
Access control (IAM)
Shared access signatures (SAS)

App2:

Access keys
Advanced security
Access control (IAM)
Shared access signatures (SAS)

Correct

Answer:

## Answer Area

App1:

Access keys
Advanced security
Access control (IAM)
Shared access signatures (SAS)

App2:

Access keys
Advanced security
Access control (IAM)
Shared access signatures (SAS)

App1: Access keys -

App2: Shared access signature (SAS)

A shared access signature (SAS) provides secure delegated access to resources in your storage account without compromising the security of your data. With a

SAS, you have granular control over how a client can access your data. You can control what resources the client may access, what permissions they have on those resources, and how long the SAS is valid, among other parameters.

Reference:

<https://docs.microsoft.com/en-us/azure/storage/common/storage-sas-overview>

Question #5 Topic 3

HOTSPOT -

You need to create an Azure Storage account that meets the following requirements: ☈

Minimizes costs

☛ Supports hot, cool, and archive blob tiers

☛ Provides fault tolerance if a disaster affects the Azure region where the account resides

How should you complete the command? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point. Hot Area:

### Answer Area

```
az storage account create -g RG1 -n storageaccount1
```

--kind	<input type="button" value="▼"/>	<input type="button" value="▼"/>
FileStorage		Standard_GRS
Storage		Standard_LRS
StorageV2		Standard_RAGRS
		Premium_LRS

Correct

Answer:

### Answer Area

```
az storage account create -g RG1 -n storageaccount1
```

--kind	<input type="button" value="▼"/>	<input type="button" value="▼"/>
FileStorage		Standard_GRS
Storage		Standard_LRS
StorageV2		Standard_RAGRS
		Premium_LRS

Box 1: StorageV2 -

You may only tier your object storage data to hot, cool, or archive in Blob storage and General Purpose v2 (GPv2) accounts. General Purpose v1 (GPv1) accounts do not support tiering.

General-purpose v2 accounts deliver the lowest per-gigabyte capacity prices for Azure Storage, as well as industry-competitive transaction prices.

Box 2: Standard\_GRS -

Geo-redundant storage (GRS): Cross-regional replication to protect against region-wide unavailability.

Incorrect Answers:

Locally-redundant storage (LRS): A simple, low-cost replication strategy. Data is replicated within a single storage scale unit.

Read-access geo-redundant storage (RA-GRS): Cross-regional replication with read access to the replica.

RA-GRS provides read-only access to the data in the secondary location, in addition to geo-replication across two regions, but is more expensive compared to GRS.

Reference:

<https://docs.microsoft.com/en-us/azure/storage/common/storage-redundancy-grs>

<https://docs.microsoft.com/en-us/azure/storage/blobs/storage-blob-storage-tiers>

Question #6Topic 3

You have an Azure subscription that contains the resources in the following table.

Name	Type
RG1	Resource group
store1	Azure Storage account
Sync1	Azure File Sync

Store1 contains a file share named data. Data contains 5,000 files.

You need to synchronize the files in the file share named data to an on-premises server named Server1.

Which three actions should you perform? Each correct answer presents part of the solution. NOTE:

Each correct selection is worth one point.

- A. Create a container instance
- B. Register Server1
- C. Install the Azure File Sync agent on Server1
- D. Download an automation script
- E. Create a sync group

**Correct Answer:** BCE

Step 1 (C): Install the Azure File Sync agent on Server1

The Azure File Sync agent is a downloadable package that enables Windows Server to be synced with an Azure file share

Step 2 (B): Register Server1.

Register Windows Server with Storage Sync Service

Registering your Windows Server with a Storage Sync Service establishes a trust relationship between your server (or cluster) and the Storage Sync Service. Step 3 (E): Create a sync group and a cloud endpoint.

A sync group defines the sync topology for a set of files. Endpoints within a sync group are kept in sync with each other. A sync group must contain one cloud endpoint, which represents an Azure file share and one or more server endpoints. A server endpoint represents a path on registered server.

Reference:

<https://docs.microsoft.com/en-us/azure/storage/files/storage-sync-files-deployment-guide>

Question #7Topic 3

HOTSPOT -

You have an Azure subscription that contains the resources shown in the following table.

Name	Type	Resource group
VNET1	Virtual network	RG1
VNET2	Virtual network	RG2
VM1	Virtual machine	RG2

The status of VM1 is Running.

You assign an Azure policy as shown in the exhibit. (Click the Exhibit tab.)

Home > Policy - Assignments > Assign Policy

## Assign Policy

**SCOPE**

\* Scope (Learn more about setting the scope)  
Azure Pass/RG2

**Exclusions**

Optionally select resources to exempt from the policy assignment

**BASICS**

\* Policy definition  
Not allowed resource types

\* Assignment name ⓘ  
Not allowed resource types

Description

Assigned by  
First User

**PARAMETERS**

\* Not allowed resource types ⓘ  
3 selected

**Actions**

Assign Cancel

You assign the policy by using the following parameters:

Microsoft.ClassicNetwork/virtualNetworks

Microsoft.Network/virtualNetworks

Microsoft.Compute/virtualMachines

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point.

Hot Area:

### Answer Area

Statements	Yes	No
An administrator can move VNET1 to RG2	<input type="radio"/>	<input type="radio"/>
The state of VM1 changed to deallocated	<input type="radio"/>	<input type="radio"/>
An administrator can modify the address space of VNET2	<input type="radio"/>	<input type="radio"/>

**Correct**

**Answer:**

**Answer Area**

Statements	Yes	No
An administrator can move VNET1 to RG2	<input type="radio"/>	<input checked="" type="radio"/>
The state of VM1 changed to deallocated	<input checked="" type="radio"/>	<input type="radio"/>
An administrator can modify the address space of VNET2	<input type="radio"/>	<input checked="" type="radio"/>

Question #8 *Topic 3 DRAG*

DROP -

You have an Azure subscription that contains a storage account.

You have an on-premises server named Server1 that runs Windows Server 2016. Server1 has 2 TB of data.

You need to transfer the data to the storage account by using the Azure Import/Export service.

In which order should you perform the actions? To answer, move all actions from the list of actions to the answer area and arrange them in the correct order.

NOTE: More than one order of answer choices is correct. You will receive credit for any of the correct orders you select. Select and Place:

Actions	Answer Area
From the Azure portal, update the import job	
From the Azure portal, create an import job	
Attach an external disk to Server1 and then run waimportexport.exe	
Detach the external disks from Server1 and ship the disks to an Azure data center	 

**Correct**

**Answer:**

Actions	Answer Area	
From the Azure portal, update the import job	Attach an external disk to Server1 and then run waimportexport.exe	
From the Azure portal, create an import job	From the Azure portal, create an import job	
Attach an external disk to Server1 and then run waimportexport.exe	>	Detach the external disks from Server1 and ship the disks to an Azure data center
Detach the external disks from Server1 and ship the disks to an Azure data center	<	From the Azure portal, update the import job

At a high level, an import job involves the following steps:

Step 1: Attach an external disk to Server1 and then run waimportexport.exe

Determine data to be imported, number of drives you need, destination blob location for your data in Azure storage.

Use the WAImportExport tool to copy data to disk drives. Encrypt the disk drives with BitLocker.

Step 2: From the Azure portal, create an import job.

Create an import job in your target storage account in Azure portal. Upload the drive journal files.

Step 3: Detach the external disks from Server1 and ship the disks to an Azure data center.

Provide the return address and carrier account number for shipping the drives back to you.

Ship the disk drives to the shipping address provided during job creation.

Step 4: From the Azure portal, update the import job

Update the delivery tracking number in the import job details and submit the import job.

The drives are received and processed at the Azure data center.

The drives are shipped using your carrier account to the return address provided in the import job.

Reference: <https://docs.microsoft.com/en-us/azure/storage/common/storage-import-export-service> Question #9 Topic 3 HOTSPOT -

You have Azure subscription that includes following Azure file shares:

Name	In storage account	Location
share1	storage1	West US
share2	storage1	West US

You have the following on-premises servers:

Name	Folders
Server1	D:\Folder1, E:\Folder2
Server2	D:\Data

You create a Storage Sync Service named Sync1 and an Azure File Sync group named Group1. Group1 uses share1 as a cloud endpoint.

You register Server1 and Server2 in Sync1. You add D:\Folder1 on Server1 as a server endpoint of Group1. For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point.

Hot Area:

## Answer Area

Statements	Yes	No
share2 can be added as a cloud endpoint for Group1	<input type="radio"/>	<input type="radio"/>
E:\Folder2 on Server1 can be added as a server endpoint for Group1	<input type="radio"/>	<input type="radio"/>
D:\Data on Server2 can be added as a server endpoint for Group1	<input type="radio"/>	<input type="radio"/>

Correct

Answer:

## Answer Area

Statements	Yes	No
share2 can be added as a cloud endpoint for Group1	<input type="radio"/>	<input checked="" type="radio"/>
E:\Folder2 on Server1 can be added as a server endpoint for Group1	<input checked="" type="radio"/>	<input type="radio"/>
D:\Data on Server2 can be added as a server endpoint for Group1	<input checked="" type="radio"/>	<input type="radio"/>

Box 1: No -

Group1 already has a cloud endpoint named Share1.

A sync group must contain one cloud endpoint, which represents an Azure file share and one or more server endpoints.

Box 2: Yes -

Yes, one or more server endpoints can be added to the sync group.

Box 3: Yes -

Yes, one or more server endpoints can be added to the sync group.

Reference: <https://docs.microsoft.com/en-us/azure/storage/files/storage-sync-files-deployment-guide> Question #10Topic 3

DRAG DROP -

You have an Azure subscription named Subscription1.

You create an Azure Storage account named contosostorage, and then you create a file share named data. Which UNC path should you include in a script that references files from the data file share? To answer, drag the appropriate values to the correct targets. Each value may be used once, more than once or not at all. You may need to drag the split bar between panes or scroll to view content.

NOTE: Each correct selection is worth one point.

Select and Place:

Values		Answer Area
blob	blob.core.windows.net	\ [ ] . [ ] \ [ ]
contosostorage	data	
file	file.core.windows.net	
portal.azure.com	subscription1	

## Correct

**Answer:**

Values		Answer Area
blob	blob.core.windows.net	\ [ ] . [ ] \ [ ]
contosostorage	data	
file	file.core.windows.net	
portal.azure.com	subscription1	

Box 1: contosostorage -

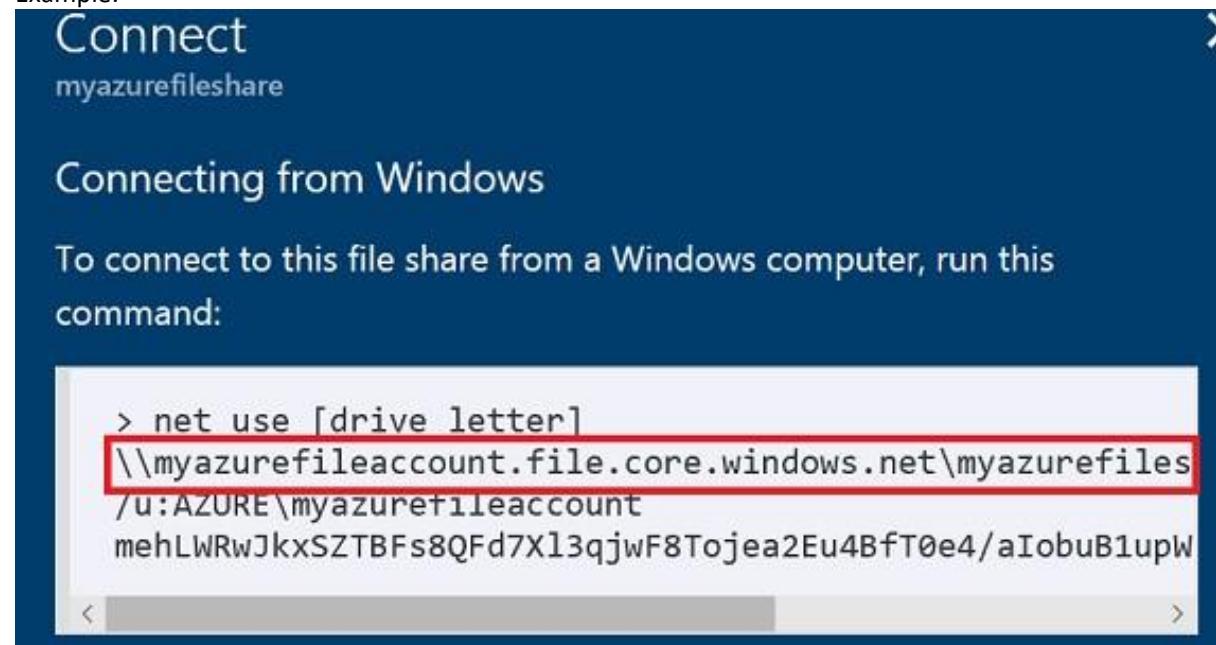
The name of account -

Box 2: file.core.windows.net -

Box 3: data -

The name of the file share is data.

Example:



Reference:

<https://docs.microsoft.com/en-us/azure/storage/files/storage-how-to-use-files-windows>

Question #11 *Topic 3*

HOTSPOT -

You have an Azure subscription that contains an Azure Storage account.

You plan to copy an on-premises virtual machine image to a container named `vmimages`.

You need to create the container for the planned image.

Which command should you run? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point. Hot Area:

**Answer Area**

azcopy	<ul style="list-style-type: none"><li>make</li><li>sync</li><li>copy</li></ul>
'https://mystorageaccount.	.core.windows.net/vmimages'
	<ul style="list-style-type: none"><li>blob</li><li>dfs</li><li>queue</li><li>table</li><li>images</li><li>file</li></ul>

**Correct**

**Answer:**

**Answer Area**

azcopy	<ul style="list-style-type: none"><li>make</li><li>sync</li><li>copy</li></ul>
'https://mystorageaccount.	.core.windows.net/vmimages'
	<ul style="list-style-type: none"><li>blob</li><li>dfs</li><li>queue</li><li>table</li><li>images</li><li>file</li></ul>

Question #12 *Topic 3*

HOTSPOT -

You have an Azure File sync group that has the endpoints shown in the following table.

Name	Type
Endpoint1	Cloud endpoint
Endpoint2	Server endpoint
Endpoint3	Server endpoint

Cloud tiering is enabled for Endpoint3.

You add a file named File1 to Endpoint1 and a file named File2 to Endpoint2.

On which endpoints will File1 and File2 be available within 24 hours of adding the files? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

### Answer Area

File1:

▼

Endpoint1 only
Endpoint3 only
Endpoint2 and Endpoint3 only
Endpoint1, Endpoint2, and Endpoint3

File2:

▼

Endpoint2 only
Endpoint3 only
Endpoint2 and Endpoint3 only
Endpoint1, Endpoint2, and Endpoint3

Correct

Answer:

## Answer Area

File1:

Endpoint1 only
Endpoint3 only
Endpoint2 and Endpoint3 only
Endpoint1, Endpoint2, and Endpoint3

File2:

Endpoint2 only
Endpoint3 only
Endpoint2 and Endpoint3 only
Endpoint1, Endpoint2, and Endpoint3

File1: Endpoint3 only -

Cloud Tiering: A switch to enable or disable cloud tiering. When enabled, cloud tiering will tier files to your Azure file shares. This converts on-premises file shares into a cache, rather than a complete copy of the dataset, to help you manage space efficiency on your server. With cloud tiering, infrequently used or accessed files can be tiered to Azure Files. File2: Endpoint1, Endpoint2, and Endpoint3 Reference:

<https://docs.microsoft.com/en-us/azure/storage/files/storage-sync-cloud-tiering>

Question #13 Topic 3

HOTSPOT -

You have several Azure virtual machines on a virtual network named VNet1.

You configure an Azure Storage account as shown in the following exhibit.

Home > Storage accounts >contoso – Firewalls and virtual networks

contoso – Firewalls and virtual networks

Storage Account

Search (Ctrl +/)

Overview

Activity log

Access control (IAM)

Tags

Diagnose and solve problems

Events

Storage Explorer (preview)

SETTINGS

Access keys

Configuration

Encryption

Shared access signature

Firewalls and virtual networks

Properties

Locks

Automation script

Save Discard

Allow access from

All networks  Selected networks

Configure network security for your storage accounts. [Learn more.](#)

Virtual networks

Secure your storage account with virtual networks. [+ Add existing virtual network](#) [+ Add new virtual network](#)

VIRTUAL NET...	SUBNET	ADDRESS RA...	ENDPOINT ST...	RESOURCE G...	SUBSCRIPTION
▼ VNet1	1	10.2.0.0/16		DemoRG	Production subscrip ...
	Prod	10.2.0.0/24	✓ Enabled	DemoRG	Production subscrip ...

Firewall

Add IP ranges to allow access from the Internet or your on-premises networks. [Learn more.](#)

ADDRESS RANGE

IP address or CIDR

Exceptions

Allow trusted Microsoft services to access this storage account

Allow read access to storage logging from any network

Allow read access to storage metrics from any network

Use the drop-down menus to select the answer choice that completes each statement based on the information presented in the graphic.

NOTE: Each correct selection is worth one point.

Hot Area:

### Answer Area

The virtual machines on the 10.2.9.0/24 subnet will have network connectivity to the file shares in the storage account [answer choice].

▼
always
during a backup
never

Azure Backup will be able to back up the unmanaged hard disks of the virtual machines in the storage account [answer choice].

▼
always
during a backup
never

Correct

Answer:

## Answer Area

The virtual machines on the 10.2.9.0/24 subnet will have network connectivity to the file shares in the storage account [answer choice].

▼
always
during a backup
never

Azure Backup will be able to back up the unmanaged hard disks of the virtual machines in the storage account [answer choice].

▼
always
during a backup
never

Box 1: never -

The 10.2.9.0/24 subnet is not whitelisted.

Box 2: never -

After you configure firewall and virtual network settings for your storage account, select Allow trusted Microsoft services to access this storage account as an exception to enable Azure Backup service to access the network restricted storage account.

The screenshot shows the Azure Storage account 'sogupstorage' settings page. The left sidebar includes options like Overview, Activity log, Access control (IAM), Tags, Diagnose and solve problems, Storage Explorer (preview), Access keys, Configuration, Encryption, Shared access signature, Firewalls and virtual networks (which is selected and highlighted in blue), and Metrics (preview). The main pane shows 'Allow access from' settings with 'Selected networks' selected. It also includes sections for Virtual networks, Firewall (with a note about adding IP ranges), ADDRESS RANGE, and Exceptions. The 'Exceptions' section contains three checkboxes: 'Allow trusted Microsoft services to access this storage account' (which is checked and highlighted with a red box), 'Allow read access to storage logging from any network', and 'Allow read access to storage metrics from any network'.

Reference: <https://docs.microsoft.com/en-us/azure/storage/files/storage-how-to-use-files-windows>

<https://azure.microsoft.com/en-us/blog/azure-backup-now-supports-storage-accounts-secured-with-azure-storage-firewalls-and-virtual-networks/>

Question #14 Topic 3 HOTSPOT

You have a sync group named Sync1 that has a cloud endpoint. The cloud endpoint includes a file named File1.txt.

Your on-premises network contains servers that run Windows Server 2016. The servers are configured as shown in the following table.

Name	Share	Share contents
Server1	Share1	File1.txt, File2.txt
Server2	Share2	File2.txt, File3.txt

You add Share1 as an endpoint for Sync1. One hour later, you add Share2 as an endpoint for Sync1.

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point. Hot Area:

## Answer Area

Statements	Yes	No
On the cloud endpoint, File1.txt is overwritten by File1.txt from Share1.	<input type="radio"/>	<input type="radio"/>
On Server1, File1.txt is overwritten by File1.txt from the cloud endpoint.	<input type="radio"/>	<input type="radio"/>
File1.txt from Share1 replicates to Share2.	<input type="radio"/>	<input type="radio"/>

Correct

Answer:

## Answer Area

Statements	Yes	No
On the cloud endpoint, File1.txt is overwritten by File1.txt from Share1.	<input checked="" type="radio"/>	<input type="radio"/>
On Server1, File1.txt is overwritten by File1.txt from the cloud endpoint.	<input type="radio"/>	<input checked="" type="radio"/>
File1.txt from Share1 replicates to Share2.	<input checked="" type="radio"/>	<input type="radio"/>

Box 1: Yes -

If you add an Azure file share that has an existing set of files as a cloud endpoint to a sync group, the existing files are merged with any other files that are already on other endpoints in the sync group.

Box 2: No -

Box 3: Yes - Reference:

<https://docs.microsoft.com/en-us/azure/storage/files/storage-sync-files-planning> Question #15Topic 3

You have an Azure subscription that contains the storage accounts shown in the following table.

Name	Kind	Performance	Replication	Access tier
storage1	Storage (general purpose v1)	Premium	Geo-redundant storage (GRS)	None
storage2	StorageV2 (general purpose v2)	Standard	Locally-redundant storage (LRS)	Cool
storage3	StorageV2 (general purpose v2)	Premium	Read-access geo-redundant storage (RA-GRS)	Hot
storage4	BlobStorage	Standard	Locally-redundant storage (LRS)	Hot

You need to identify which storage account can be converted to zone-redundant storage (ZRS) replication by requesting a live migration from Azure support. What should you identify?

- A. storage1
- B. storage2
- C. storage3
- D. storage4

**Correct Answer:** *B*

ZRS currently supports standard general-purpose v2, FileStorage and BlockBlobStorage storage account types.

Incorrect Answers:

A, not C: Live migration is supported only for storage accounts that use LRS replication. If your account uses GRS or RA-GRS, then you need to first change your account's replication type to LRS before proceeding. This intermediary step removes the secondary endpoint provided by GRS/RA-GRS. Also, only standard storage account types support live migration. Premium storage accounts must be migrated manually.

D: ZRS currently supports standard general-purpose v2, FileStorage and BlockBlobStorage storage account types.

Reference:

<https://docs.microsoft.com/en-us/azure/storage/common/storage-redundancy-zrs>

**Question #16Topic 3**

You have an Azure subscription that contains a storage account named account1.

You plan to upload the disk files of a virtual machine to account1 from your on-premises network. The on-premises network uses a public IP address space of 131.107.1.0/24.

You plan to use the disk files to provision an Azure virtual machine named VM1. VM1 will be attached to a virtual network named VNet1. VNet1 uses an IP address space of 192.168.0.0/24. You need to configure account1 to meet the following requirements:

- ⇒ Ensure that you can upload the disk files to account1.
- ⇒ Ensure that you can attach the disks to VM1.
- ⇒ Prevent all other access to account1.

Which two actions should you perform? Each correct answer presents part of the solution. NOTE: Each correct selection is worth one point.

- A. From the Networking blade of account1, select Selected networks.
- B. From the Networking blade of account1, select Allow trusted Microsoft services to access this storage account.

- C. From the Networking blade of account1, add the 131.107.1.0/24 IP address range.
- D. From the Networking blade of account1, add VNet1.
- E. From the Service endpoints blade of VNet1, add a service endpoint.

**Correct Answer:** AC

A: By default, storage accounts accept connections from clients on any network. To limit access to selected networks, you must first change the default action.

Azure portal -

1. Navigate to the storage account you want to secure.
2. Click on the settings menu called Firewalls and virtual networks.
3. To deny access by default, choose to allow access from 'Selected networks'. To allow traffic from all networks, choose to allow access from 'All networks'.
4. Click Save to apply your changes.

E: Grant access from a Virtual Network

Storage accounts can be configured to allow access only from specific Azure Virtual Networks.

By enabling a Service Endpoint for Azure Storage within the Virtual Network, traffic is ensured an optimal route to the Azure Storage service. The identities of the virtual network and the subnet are also transmitted with each request.

Reference:

<https://docs.microsoft.com/en-us/azure/storage/common/storage-network-security>

**Question #17 Topic 3**

DRAG DROP -

You have an on-premises file server named Server1 that runs Windows Server 2016.

You have an Azure subscription that contains an Azure file share.

You deploy an Azure File Sync Storage Sync Service, and you create a sync group.

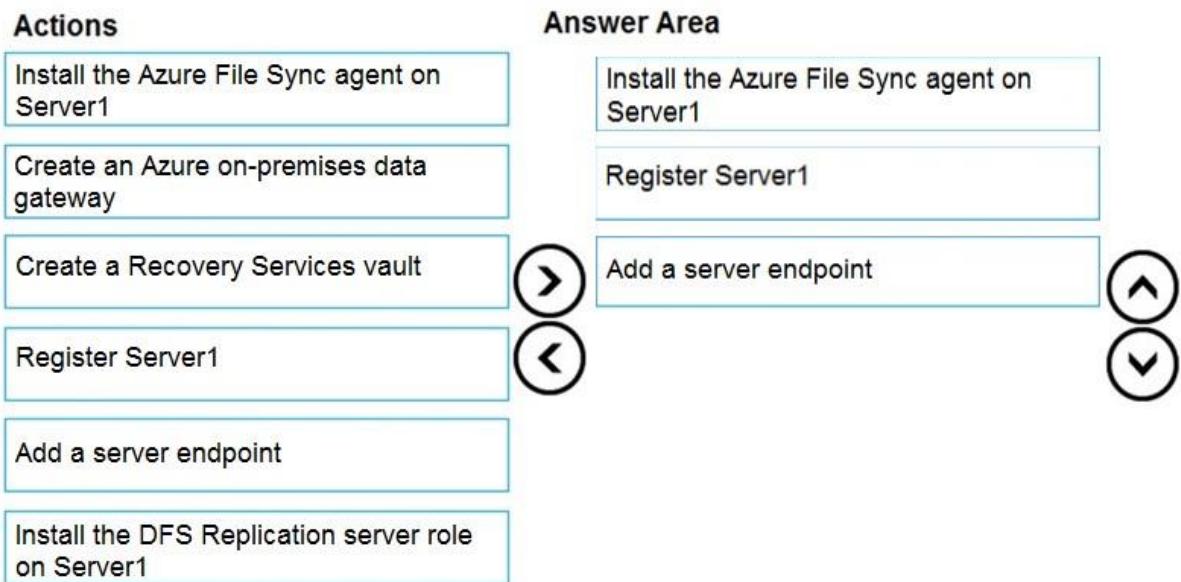
You need to synchronize files from Server1 to Azure.

Which three actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order. Select and Place:

Actions	Answer Area
Install the Azure File Sync agent on Server1	
Create an Azure on-premises data gateway	
Create a Recovery Services vault	▶
Register Server1	◀
Add a server endpoint	
Install the DFS Replication server role on Server1	↑ ↓

**Correct**

**Answer:**



**Step 1: Install the Azure File Sync agent on Server1**

The Azure File Sync agent is a downloadable package that enables Windows Server to be synced with an Azure file share.

**Step 2: Register Server1.**

Register Windows Server with Storage Sync Service

Registering your Windows Server with a Storage Sync Service establishes a trust relationship between your server (or cluster) and the Storage Sync Service.

**Step 3: Add a server endpoint -**

Create a sync group and a cloud endpoint.

A sync group defines the sync topology for a set of files. Endpoints within a sync group are kept in sync with each other. A sync group must contain one cloud endpoint, which represents an Azure file share and one or more server endpoints. A server endpoint represents a path on registered server.

Reference: <https://docs.microsoft.com/en-us/azure/storage/files/storage-sync-files-deployment-guide> Question #18Topic 3

HOTSPOT -

You plan to create an Azure Storage account in the Azure region of East US 2.

You need to create a storage account that meets the following requirements:

- Replicates synchronously.
- Remains available if a single data center in the region fails.

How should you configure the storage account? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

## Answer Area

Replication:

Geo-redundant storage (GRS)
Locally-redundant storage (LRS)
Read-access geo-redundant storage (RA GRS)
Zone-redundant storage (ZRS)

Account type:

Blob storage
Storage (general purpose v1)
StorageV2 (general purpose v2)

Correct

Answer:

## Answer Area

Replication:

Geo-redundant storage (GRS)
Locally-redundant storage (LRS)
Read-access geo-redundant storage (RA GRS)
Zone-redundant storage (ZRS)

Account type:

Blob storage
Storage (general purpose v1)
StorageV2 (general purpose v2)

Box 1: Zone-redundant storage (ZRS)

Zone-redundant storage (ZRS) replicates your data synchronously across three storage clusters in a single region.

LRS would not remain available if a data center in the region fails

GRS and RA GRS use asynchronous replication.

Box 2: StorageV2 (general purpose V2)

ZRS only support GPv2.

Reference: <https://docs.microsoft.com/en-us/azure/storage/common/storage-redundancy>

<https://docs.microsoft.com/en-us/azure/storage/common/storage-redundancy-zrs>

Question #19 Topic 3

You plan to use the Azure Import/Export service to copy files to a storage account.

Which two files should you create before you prepare the drives for the import job? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. an XML manifest file
- B. a dataset CSV file
- C. a JSON configuration file
- D. a PowerShell PS1 file
- E. a driveset CSV file

**Correct Answer: B**

B: Modify the dataset.csv file in the root folder where the tool resides. Depending on whether you want to import a file or folder or both, add entries in the dataset.csv file E: Modify the driveset.csv file in the root folder where the tool resides.

Reference:

<https://docs.microsoft.com/en-us/azure/storage/common/storage-import-export-data-to-files>

**Question #20 Topic 3**

You have a Recovery Service vault that you use to test backups. The test backups contain two protected virtual machines.

You need to delete the Recovery Services vault. What should you do first?

- A. From the Recovery Service vault, delete the backup data.
- B. Modify the disaster recovery properties of each virtual machine.
- C. Modify the locks of each virtual machine.
- D. From the Recovery Service vault, stop the backup of each backup item.

**Correct Answer: D**

You can't delete a Recovery Services vault if it is registered to a server and holds backup data. If you try to delete a vault, but can't, the vault is still configured to receive backup data.

Remove vault dependencies and delete vault

In the vault dashboard menu, scroll down to the Protected Items section, and click Backup Items. In this menu, you can stop and delete Azure File Servers, SQL Servers in Azure VM, and Azure virtual machines.

BACKUP MANAGEMENT TYPE	BACKUP ITEM COUNT
Azure Storage (Azure Files)	4
Azure Backup Server	3
SQL in Azure VM	1
Azure Backup Agent	1
Azure Virtual Machine	1
DPM	0

Reference:

<https://docs.microsoft.com/en-us/azure/backup/backup-azure-delete-vault>

**Question #21 Topic 3**

HOTSPOT -

You have an Azure subscription named Subscription1 that contains the resources shown in the following table.

Name	Type	Location	Resource group
RG1	Resource group	West US	<i>Not applicable</i>
RG2	Resource group	West US	<i>Not applicable</i>
Vault1	Recovery Services vault	Central US	RG1
Vault2	Recovery Services vault	West US	RG2
VM1	Virtual machine	Central US	RG2
storage1	Storage account	West US	RG1
SQL1	Azure SQL database	East US	RG2

In storage1, you create a blob container named blob1 and a file share named share1.

Which resources can be backed up to Vault1 and Vault2? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

## Answer Area

Can use Vault1 for backups:

VM1 only
VM1 and share1 only
VM1 and SQL1 only
VM1, storage1, and SQL1 only
VM1, blob1, share1, and SQL1

Can use Vault2 for backups:

storage1 only
share1 only
VM1 and share1 only
blob1 and share1 only
storage1 and SQL1 only

Correct

Answer:

## Answer Area

Can use Vault1 for backups:

VM1 only
VM1 and share1 only
VM1 and SQL1 only
VM1, storage1, and SQL1 only
VM1, blob1, share1, and SQL1

Can use Vault2 for backups:

storage1 only
share1 only
VM1 and share1 only
blob1 and share1 only
storage1 and SQL1 only

Box 1: VM1 only -

VM1 is in the same region as Vault1.

File1 is not in the same region as Vault1.

SQL is not in the same region as Vault1.

Blobs cannot be backup up to service vaults.

Note: To create a vault to protect virtual machines, the vault must be in the same region as the virtual machines.

Box 2: Share1 only.

Storage1 is in the same region (West USA) as Vault2. Share1 is in Storage1.

Note: After you select Backup, the Backup pane opens and prompts you to select a storage account from a list of discovered supported storage accounts. They're either associated with this vault or present in the same region as the vault, but not yet associated to any Recovery Services vault.

Reference: <https://docs.microsoft.com/bs-cyrl-ba/azure/backup/backup-create-rs-vault>

<https://docs.microsoft.com/en-us/azure/backup/backup-afs>

Question #22Topic 3

You have an Azure subscription named Subscription1.

You have 5 TB of data that you need to transfer to Subscription1.

You plan to use an Azure Import/Export job.

What can you use as the destination of the imported data?

- A. a virtual machine
- B. an Azure Cosmos DB database
- C. Azure File Storage
- D. the Azure File Sync Storage Sync Service

**Correct Answer: C**

Azure Import/Export service is used to securely import large amounts of data to Azure Blob storage and Azure Files by shipping disk drives to an Azure datacenter.

The maximum size of an Azure Files Resource of a file share is 5 TB.

Note:

There are several versions of this question in the exam. The question has two correct answers:

1. Azure File Storage
2. Azure Blob Storage

The question can have other incorrect answer options, including the following:

- Azure Data Lake Store
- Azure SQL Database
- Azure Data Factory Reference:

<https://docs.microsoft.com/en-us/azure/storage/common/storage-import-export-service>

**Question #23 Topic 3**

HOTSPOT -

You have an Azure subscription.

You create the Azure Storage account shown in the following exhibit.

Microsoft Azure (Preview) Search resources, services, and docs (G+) 

Home > Subscriptions > Subscription1 - Resources > New > Create storage account

## Create storage account

 Validation passed

Basics Networking Advanced Tags **Review + create**

### Basics

Subscription	Subscription1
Resource group	RG1

### Location

Storage account name	storage16852
Deployment model	Resource manager
Account kind	StorageV2 (general purpose v2)
Replication	Locally-redundant storage (LRS)
Performance	Standard
Access tier (default)	Hot

### Networking

Connectivity method	Private endpoint
Private Endpoint	{New} StorageEndpoint1 (blob) (privatelink.blob.core.windows.net)

### Advanced

Secure transfer required	Enabled
Large file shares	Disabled
Blob soft delete	Disabled
Blob change feed	Disabled
Hierarchical namespace	Disabled
NFS v3	Disabled

**Create**  

Download a template for automation

Use the drop-down menus to select the answer choice that completes each statement based on the information presented in the graphic.

NOTE: Each correct selection is worth one point.

Hot Area:

## Answer Area

The minimum number of copies of the storage account will be  
[answer choice]

1
2
3
4

To reduce the cost of infrequently accessed data in the storage account, you must modify the [answer choice] setting

Access tier (default)
Performance
Account kind
Replication

Correct

Answer:

## Answer Area

The minimum number of copies of the storage account will be  
[answer choice]

1
2
3
4

To reduce the cost of infrequently accessed data in the storage account, you must modify the [answer choice] setting

Access tier (default)
Performance
Account kind
Replication

Box 1: 3 -

Locally Redundant Storage (LRS) provides highly durable and available storage within a single location (sub region). We maintain an equivalent of 3 copies (replicas) of your data within the primary location as described in our SOSP paper; this ensures that we can recover from common failures (disk, node, rack) without impacting your storage account's availability and durability.

Box 2: Access tier -

Change the access tier from Hot to Cool.

Note: Azure storage offers different access tiers, which allow you to store blob object data in the most cost-effective manner. The available access tiers include:

Hot - Optimized for storing data that is accessed frequently.

Cool - Optimized for storing data that is infrequently accessed and stored for at least 30 days.

Archive - Optimized for storing data that is rarely accessed and stored for at least 180 days with flexible latency requirements (on the order of hours).

Reference: <https://azure.microsoft.com/en-us/blog/data-series-introducing-locally-redundant-storage-for-windowsazure-storage/> <https://docs.microsoft.com/en-us/azure/storage/blobs/storage-blob-storage-tiers>

Question #24Topic 3

You have an Azure Storage account named storage1.

You plan to use AzCopy to copy data to storage1.

You need to identify the storage services in storage1 to which you can copy the data. Which storage services should you identify?

- A. blob, file, table, and queue
- B. blob and file only
- C. file and table only
- D. file only
- E. blob, table, and queue only

**Correct Answer: B**

AzCopy is a command-line utility that you can use to copy blobs or files to or from a storage account.

Incorrect Answers:

A, C, E: AzCopy does not support table and queue storage services.

D: AzCopy supports file storage services, as well as blob storage services.

Reference:

<https://docs.microsoft.com/en-us/azure/storage/common/storage-use-azcopy-v10>

Question #25 *Topic 3 HOTSPOT*

You have an Azure Storage account named storage1 that uses Azure Blob storage and Azure File storage. You need to use AzCopy to copy data to the blob storage and file storage in storage1.

Which authentication method should you use for each type of storage? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point. Hot

Area:

**Answer Area**

Blob storage:

Azure Active Directory (Azure AD) only
Shared access signatures (SAS) only
Access keys and shared access signatures (SAS) only
Azure Active Directory (Azure AD) and shared access signatures (SAS) only
Azure Active Directory (Azure AD), access keys, and shared access signatures (SAS)

File storage:

Azure Active Directory (Azure AD) only
Shared access signatures (SAS) only
Access keys and shared access signatures (SAS) only
Azure Active Directory (Azure AD) and shared access signatures (SAS) only
Azure Active Directory (Azure AD), access keys, and shared access signatures (SAS)

**Correct**

**Answer:**

## Answer Area

Blob storage:	<table border="1"><tr><td>Azure Active Directory (Azure AD) only</td></tr><tr><td>Shared access signatures (SAS) only</td></tr><tr><td>Access keys and shared access signatures (SAS) only</td></tr><tr style="background-color: #90EE90;"><td>Azure Active Directory (Azure AD) and shared access signatures (SAS) only</td></tr><tr><td>Azure Active Directory (Azure AD), access keys, and shared access signatures (SAS)</td></tr></table>	Azure Active Directory (Azure AD) only	Shared access signatures (SAS) only	Access keys and shared access signatures (SAS) only	Azure Active Directory (Azure AD) and shared access signatures (SAS) only	Azure Active Directory (Azure AD), access keys, and shared access signatures (SAS)
Azure Active Directory (Azure AD) only						
Shared access signatures (SAS) only						
Access keys and shared access signatures (SAS) only						
Azure Active Directory (Azure AD) and shared access signatures (SAS) only						
Azure Active Directory (Azure AD), access keys, and shared access signatures (SAS)						
File storage:	<table border="1"><tr><td>Azure Active Directory (Azure AD) only</td></tr><tr style="background-color: #90EE90;"><td>Shared access signatures (SAS) only</td></tr><tr><td>Access keys and shared access signatures (SAS) only</td></tr><tr><td>Azure Active Directory (Azure AD) and shared access signatures (SAS) only</td></tr><tr><td>Azure Active Directory (Azure AD), access keys, and shared access signatures (SAS)</td></tr></table>	Azure Active Directory (Azure AD) only	Shared access signatures (SAS) only	Access keys and shared access signatures (SAS) only	Azure Active Directory (Azure AD) and shared access signatures (SAS) only	Azure Active Directory (Azure AD), access keys, and shared access signatures (SAS)
Azure Active Directory (Azure AD) only						
Shared access signatures (SAS) only						
Access keys and shared access signatures (SAS) only						
Azure Active Directory (Azure AD) and shared access signatures (SAS) only						
Azure Active Directory (Azure AD), access keys, and shared access signatures (SAS)						

You can provide authorization credentials by using Azure Active Directory (AD), or by using a Shared Access Signature (SAS) token.

Box 1:

Both Azure Active Directory (AD) and Shared Access Signature (SAS) token are supported for Blob storage.

Box 2:

Only Shared Access Signature (SAS) token is supported for File storage.

Reference: <https://docs.microsoft.com/en-us/azure/storage/common/storage-use-azcopy-v10>

Question #26Topic 3

You have an Azure subscription that contains an Azure Storage account.

You plan to create an Azure container instance named container1 that will use a Docker image named Image1. Image1 contains a Microsoft SQL Server instance that requires persistent storage. You need to configure a storage service for Container1. What should you use?

- A. Azure Files
- B. Azure Blob storage
- C. Azure Queue storage
- D. Azure Table storage

**Correct Answer:** A Reference: <https://azure.microsoft.com/en-us/blog/persistent-docker-volumes-with-azure-file-storage/> <https://docs.microsoft.com/en-us/azure/aks/concepts-storage>

Question #27Topic 3

You have an app named App1 that runs on two Azure virtual machines named VM1 and VM2.

You plan to implement an Azure Availability Set for App1. The solution must ensure that App1 is available during planned maintenance of the hardware hosting VM1 and VM2.

What should you include in the Availability Set?

- A. one update domain
- B. two fault domains
- C. one fault domain
- D. two update domains

**Correct Answer:** D

Microsoft updates, which Microsoft refers to as planned maintenance events, sometimes require that VMs be rebooted to complete the update. To reduce the impact on VMs, the Azure fabric is divided into update domains to ensure that not all VMs are rebooted at the same time.

Incorrect Answers:

A: An update domain is a group of VMs and underlying physical hardware that can be rebooted at the same time.

B, C: A fault domain shares common storage as well as a common power source and network switch. It is used to protect against unplanned system failure.

References: <https://petri.com/understanding-azure-availability-sets>

<https://docs.microsoft.com/en-us/azure/virtual-machines/windows/tutorial-availability-sets>

### Question #28 *Topic 3*

You have an Azure subscription named Subscription1.

You have 5 TB of data that you need to transfer to Subscription1.

You plan to use an Azure Import/Export job.

What can you use as the destination of the imported data?

- A. an Azure Cosmos DB database
- B. Azure Blob storage
- C. Azure Data Lake Store
- D. the Azure File Sync Storage Sync Service

### **Correct Answer: B**

Azure Import/Export service is used to securely import large amounts of data to Azure Blob storage and Azure Files by shipping disk drives to an Azure datacenter.

Note:

There are several versions of this question in the exam. The question has two correct answers:

1. Azure File Storage
2. Azure Blob Storage

The question can have other incorrect answer options, including the following:

- a virtual machine
- Azure SQL Database
- Azure Data Factory Reference:

<https://docs.microsoft.com/en-us/azure/storage/common/storage-import-export-service>

### Question #29 *Topic 3 DRAG*

DROP -

You have an Azure subscription that contains an Azure file share.

You have an on-premises server named Server1 that runs Windows Server 2016.

You plan to set up Azure File Sync between Server1 and the Azure file share.

You need to prepare the subscription for the planned Azure File Sync.

Which two actions should you perform in the Azure subscription? To answer, drag the appropriate actions to the correct targets. Each action may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.

NOTE: Each correct selection is worth one point.

Select and Place:

**Actions**

- Create a Storage Sync Service
- Install the Azure File Sync agent
- Create a sync group
- Run Server Registration

**Answer Area**

First action:

Action

Second action:

Action

**Correct****Answer:****Actions**

- 
- 
- Create a sync group
- Run Server Registration

**Answer Area**

First action:

Create a Storage Sync Service

Second action:

Install the Azure File Sync agent

First action: Create a Storage Sync Service

The deployment of Azure File Sync starts with placing a Storage Sync Service resource into a resource group of your selected subscription.

Second action: Install the Azure File Sync agent

The Azure File Sync agent is a downloadable package that enables Windows Server to be synced with an Azure file share.

Reference: <https://docs.microsoft.com/en-us/azure/storage/files/storage-sync-files-deployment-guide> Question #30 Topic 3 HOTSPOT -

You have an Azure subscription that contains the file shares shown in the following table.

Name	Location
share1	West US
share2	West US
share3	East US

You have the on-premises file shares shown in the following table.

Name	Server	Path
data1	Server1	D:\Folder1
data2	Server2	E:\Folder2
data3	Server3	E:\Folder2

You create an Azure file sync group named Sync1 and perform the following actions:

- Add share1 as the cloud endpoint for Sync1.
- Add data1 as a server endpoint for Sync1.
- Register Server1 and Server2 to Sync1.

For each of the following statements, select Yes if the statement is true. Otherwise, select No. NOTE: Each correct selection is worth one point.

Hot Area:

### Answer Area

Statements	Yes	No
You can add share3 as an additional cloud endpoint for Sync1.	<input type="radio"/>	<input type="radio"/>
You can add data2 as an additional server endpoint for Sync1.	<input type="radio"/>	<input type="radio"/>
You can add data3 as an additional server endpoint for Sync1.	<input type="radio"/>	<input type="radio"/>

Correct

Answer:

### Answer Area

Statements	Yes	No
You can add share3 as an additional cloud endpoint for Sync1.	<input type="radio"/>	<input checked="" type="radio"/>
You can add data2 as an additional server endpoint for Sync1.	<input checked="" type="radio"/>	<input type="radio"/>
You can add data3 as an additional server endpoint for Sync1.	<input type="radio"/>	<input checked="" type="radio"/>

Box 1: No -

A sync group must contain one cloud endpoint, which represents an Azure file share and one or more server endpoints.

Box 2: Yes -

Data2 is located on Server2 which is registered to Sync1.

Box 3: No -

Data3 is located on Server3 which is not registered to Sync1.

Reference: <https://docs.microsoft.com/en-us/azure/storage/files/storage-sync-files-deployment-guide?tabs=azureportal%2Cproactive-portal#create-a-sync-group-and-a-cloud-endpoint>

Question #31 *Topic 3 HOTSPOT*

- You have an Azure subscription named Subscription1 that contains the resources shown in the following table:

Name	Type	Location	Resource group
RG1	Resource group	East US	<i>Not applicable</i>
RG2	Resource group	West US	<i>Not applicable</i>
Vault1	Recovery Services vault	West Europe	RG1
storage1	Storage account	East US	RG2
storage2	Storage account	West US	RG1
storage3	Storage account	West Europe	RG2
Analytics1	Log Analytics workspace	East US	RG1
Analytics2	Log Analytics workspace	West US	RG2
Analytics3	Log Analytics workspace	West Europe	RG1

You plan to configure Azure Backup reports for Vault1.

You are configuring the Diagnostics settings for the AzureBackupReports log.

Which storage accounts and which Log Analytics workspaces can you use for the Azure Backup reports of Vault1? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

## Answer Area

Storage accounts:

▼

- storage1 only
- storage2 only
- storage3 only
- storage1, storage2, and storage3

Log Analytics workspaces:

▼

- Analytics1 only
- Analytics2 only
- Analytics3 only
- Analytics1, Analytics2, and Analytics3

**Correct**

**Answer:**

## Answer Area

Storage accounts:

storage1 only
storage2 only
storage3 only
storage1, storage2, and storage3

Log Analytics workspaces:

Analytics1 only
Analytics2 only
Analytics3 only
Analytics1, Analytics2, and Analytics3

Box 1: storage1, storage2, and storage3

The location and subscription where this Log Analytics workspace can be created is independent of the location and subscription where your vaults exist.

Box 2: Analytics3 -

Vault1 and Analytics3 are both in West Europe.

Reference: <https://docs.microsoft.com/en-us/azure/backup/backup-azure-configure-reports>

Question #32 Topic 3

HOTSPOT -

You have an Azure subscription that contains the storage accounts shown in the following exhibit.

**Storage accounts** ⚡

Default Directory

+ Add Manage view Refresh Export to CSV Assign tags Delete Feedback

Filter by name... Subscription == all Resource group == all Location == all Add filter

Showing 1 to 4 of 4 records.

	Name ↑↓	Type ↑↓	Kind ↑↓	Resource group ↑↓	Location ↑↓
<input type="checkbox"/>	contoso101	Storage account	StorageV2	RG1	East US
<input type="checkbox"/>	contoso102	Storage account	Storage	RG1	East US
<input type="checkbox"/>	contoso103	Storage account	BlobStorage	RG1	East US
<input type="checkbox"/>	contoso104	Storage account	FileStorage	RG1	East US

Use the drop-down menus to select the answer choice that completes each statement based on the information presented in the graphic.

NOTE: Each correct selection is worth one point.

Hot Area:

## Answer Area

You can create a premium file share in

contoso101only
contoso104 only
contoso101 or contoso104 only
contoso101, contoso102, or contoso104 only
contoso101, contoso102, contoso103, or contoso104

You can use the Archive access tier in

contoso101only
contoso101 or contoso103 only
contoso101, contoso102, and contoso103 only
contoso101, contoso102, and contoso104 only
contoso101, contoso102, contoso103, and contoso104

Correct

Answer:

## Answer Area

You can create a premium file share in

contoso101only
contoso104 only
contoso101 or contoso104 only
contoso101, contoso102, or contoso104 only
contoso101, contoso102, contoso103, or contoso104

You can use the Archive access tier in

contoso101only
contoso101 or contoso103 only
contoso101, contoso102, and contoso103 only
contoso101, contoso102, and contoso104 only
contoso101, contoso102, contoso103, and contoso104

Box 1: contoso104 only -

Premium file shares are hosted in a special purpose storage account kind, called a FileStorage account.

Box 2: contoso101, contoso102, and contoso103 only Reference:

<https://docs.microsoft.com/en-us/azure/storage/files/storage-how-to-create-premiumfileshare?tabs=azure-portal> <https://docs.microsoft.com/en-us/azure/storage/blobs/storage-blobstorage-tiers> Question #3Topic 3

HOTSPOT -

You have an Azure subscription named Subscription1.

In Subscription1, you create an Azure file share named share1.

You create a shared access signature (SAS) named SAS1 as shown in the following exhibit:

#### Allowed services

Blob  File  Queue  Table

#### Allowed resource types

Service  Container  Object

#### Allowed permissions

Read  Write  Delete  List  Add  Create  Update  Process

#### Start and expiry date/time

##### Start

2018-09-01



2:00:00 PM

##### End

2018-09-14



2:00:00 PM

(UTC+02:00) --- Current Timezone ---



#### Allowed IP addresses

193.77.134.10-193.77.134.50



#### Allowed protocols

HTTPS only  HTTPS and HTTP

#### Signing key

key1

**Generate SAS and connection string**

To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point. Hot

Area:

#### Answer Area

If on September 2, 2018, you run Microsoft Azure Storage Explorer on a computer that has an IP address of 193.77.134.1, and you use SAS1 to connect to the storage account, you [answer choice].

will be prompted for credentials
will have no access
will have read, write, and list access
will have read-only access

If on September 10, 2018, you run the net use command on a computer that has an IP address of 193.77.134.50, and you use SAS1 as the password to connect to share1, you [answer choice].

will be prompted for credentials
will have no access
will have read, write, and list access
will have read-only access

**Correct**

**Answer:**

## Answer Area

If on September 2, 2018, you run Microsoft Azure Storage Explorer on a computer that has an IP address of 193.77.134.1, and you use SAS1 to connect to the storage account, you [answer choice].

will be prompted for credentials
will have no access
will have read, write, and list access
will have read-only access

If on September 10, 2018, you run the net use command on a computer that has an IP address of 193.77.134.50, and you use SAS1 as the password to connect to share1, you [answer choice].

will be prompted for credentials
will have no access
will have read, write, and list access
will have read-only access

Box 1: Will have no access -

The IP 193.77.134.1 does not have access on the SAS.

Box 2: Will have read, write, and list access

The net use command is used to connect to file shares.

Reference: <https://docs.microsoft.com/en-us/azure/storage/common/storage-dotnet-shared-access-signature-part->

1 <https://docs.microsoft.com/en-us/azure/vs-azure-tools-storage-manage-with-storageexplorer?tabs=windows> Question #34Topic 3

You have two Azure virtual machines named VM1 and VM2. You have two Recovery Services vaults named RSV1 and RSV2.

VM2 is backed up to RSV1.

You need to back up VM2 to RSV2. What should you do first?

- A. From the RSV1 blade, click Backup items and stop the VM2 backup
- B. From the RSV2 blade, click Backup. From the Backup blade, select the backup for the virtual machine, and then click Backup
- C. From the VM2 blade, click Disaster recovery, click Replication settings, and then select RSV2 as the Recovery Services vault
- D. From the RSV1 blade, click Backup Jobs and export the VM2 job

**Correct Answer:** A Reference:

<https://docs.microsoft.com/en-us/azure/backup/backup-azure-vms-first-look-arm>

Question #35Topic 3

You have a general-purpose v1 Azure Storage account named storage1 that uses locally-redundant storage (LRS).

You need to ensure that the data in the storage account is protected if a zone fails. The solution must minimize costs and administrative effort. What should you do first?

- A. Create a new storage account.
- B. Configure object replication rules.
- C. Upgrade the account to general-purpose v2.
- D. Modify the Replication setting of storage1.

**Correct Answer: C**

Reference:

<https://docs.microsoft.com/en-us/azure/storage/common/storage-redundancy>

Question #36Topic 3

You have an Azure subscription that contains the storage accounts shown in the following table.

Name	Type	Performance
storage1	StorageV2	Standard
storage2	BlobStorage	Standard
storage3	BlockBlobStorage	Premium
storage4	FileStorage	Premium

You plan to manage the data stored in the accounts by using lifecycle management rules. To which storage accounts can you apply lifecycle management rules?

- A. storage1 only
- B. storage1 and storage2 only
- C. storage3 and storage4 only
- D. storage1, storage2, and storage3 only
- E. storage1, storage2, storage3, and storage4

**Correct Answer: D** Reference: <https://docs.microsoft.com/en-us/azure/storage/blobs/storage-lifecycle-managementconcepts?tabs=azure-portal>

Question #37Topic 3

You create an Azure Storage account named contosostorage.

You plan to create a file share named data.

Users need to map a drive to the data file share from home computers that run Windows 10.

Which outbound port should you open between the home computers and the data file share?

- A. 80
- B. 443
- C. 445
- D. 3389

**Correct Answer: C**

Server Message Block (SMB) is used to connect to an Azure file share over the internet. The SMB protocol requires TCP port 445 to be open.

Incorrect Answers:

A: Port 80 is required for HTTP to a web server

B: Port 443 is required for HTTPS to a web server

D: Port 3389443 is required for Remote desktop protocol (RDP) connections Reference:

<https://docs.microsoft.com/en-us/azure/storage/files/storage-how-to-use-files-windows>

Question #38 *Topic 3*

You have an Azure subscription named Subscription1.  
You have 5 TB of data that you need to transfer to Subscription1.  
You plan to use an Azure Import/Export job.  
What can you use as the destination of the imported data?

- A. Azure File Storage
- B. an Azure Cosmos DB database
- C. Azure Data Factory
- D. Azure SQL Database

**Correct Answer: A**

Reference:

<https://docs.microsoft.com/en-us/azure/import-export/storage-import-export-service>

Question #39 *Topic 3*

HOTSPOT -

You have an Azure subscription that contains an Azure Storage account named storageaccount1. You export storageaccount1 as an Azure Resource Manager template. The template contains the following sections.

```
{  
    "type": "Microsoft.Storage/storageAccount",  
    "apiVersion": "2019-06-01",  
    "name": "storageaccount1",  
    "location": "eastus",  
    "sku": {  
        "name": "Standard_LRS",  
        "tier": "Standard"  
    },  
    "kind": "StorageV2",  
    "properties": {  
        "networkAccls": {  
            "bypass": "AzureServices",  
            "virtualNetworkRules": [],  
            "ipRules": [],  
            "defaultAction": "Allow",  
        },  
        "supportsHttpsTrafficOnly": true,  
        "encryption": {  
            "services": {  
                "file": {  
                    "keyType": "Account",  
                    "enabled": true  
                }  
                "blob": {  
                    "keyType": "Account",  
                    "enabled": true  
                }  
            },  
            "keySource": "Microsoft.Storage"  
        },  
        "accessTier": "Hot"  
    }  
},
```

For each of the following statements, select Yes if the statement is true. Otherwise, select No. NOTE:

Each correct selection is worth one point

Hot Area:

## Answer Area

Statements	Yes	No
A server that has a public IP address of 131.107.103.10 can access storageaccount1	<input type="radio"/>	<input type="radio"/>
Individual blobs in storageaccount1 can be set to use the archive tier	<input type="radio"/>	<input type="radio"/>
Global administrations in Azure Active Directory (Azure AD) can access a file share hosted in storageaccount1 by using their Azure AD credentials	<input type="radio"/>	<input type="radio"/>

Correct

Answer:

## Answer Area

Statements	Yes	No
A server that has a public IP address of 131.107.103.10 can access storageaccount1	<input checked="" type="radio"/>	<input type="radio"/>
Individual blobs in storageaccount1 can be set to use the archive tier	<input checked="" type="radio"/>	<input type="radio"/>
Global administrations in Azure Active Directory (Azure AD) can access a file share hosted in storageaccount1 by using their Azure AD credentials	<input type="radio"/>	<input checked="" type="radio"/>

Reference:

<https://docs.microsoft.com/en-us/azure/templates/microsoft.storage/storageaccounts?tabs=json>

Question #40Topic 3

You have an Azure subscription that contains a storage account named storage1. You have the devices shown in the following table.

Name	Platform
Device1	Windows 10
Device2	Linux
Device3	macOS

From which devices can you use AzCopy to copy data to storage1?

- A. Device 1 only
- B. Device1, Device2 and Device3
- C. Device1 and Device2 only
- D. Device1 and Device3 only

**Correct Answer: B**

Question #41 *Topic 3*

You have an Azure Storage account named storage1 that contains a blob container named container1. You need to prevent new content added to container1 from being modified for one year. What should you configure?

- A. the access tier
- B. an access policy
- C. the Access control (IAM) settings
- D. the access level

**Correct Answer: B**

Reference:

<https://docs.microsoft.com/en-us/azure/storage/blobs/immutable-storage-overview?tabs=azure-portal>

Question #42 *Topic 3 HOTSPOT*

-

You have an Azure Storage account named storage1 that contains a blob container. The blob container has a default access tier of Hot. Storage1 contains a container named container1.

You create lifecycle management rules in storage1 as shown in the following table.

Name	Rule scope	Blob type	Blob subtype	Rule block	Prefix match
Rule1	Limit blobs by using filters.	Block blobs	Base blobs	If base blobs were not modified for two days, move to archive storage. If base blobs were not modified for nine days, delete the blob.	container1/Dep1
Rule2	Apply to all blobs in storage1.	Block blobs	Base blobs	If base blobs were not modified for three days, move to cool storage. If base blobs were not modified for nine days, move to archive storage.	<b>Not applicable</b>

You perform the actions shown in the following table.

Date	Action
October 1	Upload three files named Dep1File1.docx, File2.docx, and File3.docx to container 1.
October 2	Edit Dep1File1.docx and File3.docx.
October 5	Edit File2.docx.

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point.

Hot Area:

## Answer Area

Statements	Yes	No
On October 10, you can read Dep1File1.docx.	<input type="radio"/>	<input type="radio"/>
On October 10, you can read File2.docx.	<input type="radio"/>	<input type="radio"/>
On October 10, you can read File3.docx.	<input type="radio"/>	<input type="radio"/>

Correct

Answer:

## Answer Area

Statements	Yes	No
On October 10, you can read Dep1File1.docx.	<input checked="" type="radio"/>	<input type="radio"/>
On October 10, you can read File2.docx.	<input checked="" type="radio"/>	<input type="radio"/>
On October 10, you can read File3.docx.	<input checked="" type="radio"/>	<input type="radio"/>

Question #43Topic 3

You are configuring Azure Active Directory (Azure AD) authentication for an Azure Storage account named storage1.

You need to ensure that the members of a group named Group1 can upload files by using the Azure portal. The solution must use the principle of least privilege.

Which two roles should you configure for storage1? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. Storage Account Contributor
- B. Storage Blob Data Contributor
- C. Reader
- D. Contributor
- E. Storage Blob Data Reader

**Correct Answer: BC**

To access blob data in the Azure portal with Azure AD credentials, a user must have the following role assignments:

\* A data access role, such as Storage Blob Data Reader or Storage Blob Data Contributor

\* The Azure Resource Manager Reader role, at a minimum

The Reader role is an Azure Resource Manager role that permits users to view storage account resources, but not modify them. It does not provide read permissions to data in Azure Storage, but only to account management resources. The Reader role is necessary so that users can navigate to blob containers in the Azure portal.

Note: in order from least to greatest permissions:

The Reader and Data Access role - The Storage Account Contributor role

The Azure Resource Manager Contributor role

The Azure Resource Manager Owner role

Reference:

<https://docs.microsoft.com/en-us/azure/storage/blobs/assign-azure-role-data-access>

Question #44 *Topic 3*

HOTSPOT -

You have an Azure Storage account named storage1 that stores images.

You need to create a new storage account and replicate the images in storage1 to the new account by using object replication.

How should you configure the new account? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

## Answer Area

Account type:

StorageV2 only
StorageV2 or FileStorage only
StorageV2 or BlobStorage only
StorageV2, BlobStorage, or FileStorage

Object type to create in the new account:

Container
File share
Table
Queue

Correct

Answer:

## Answer Area

Account type:

StorageV2 only
StorageV2 or FileStorage only
StorageV2 or BlobStorage only
StorageV2, BlobStorage, or FileStorage

Object type to create in the new account:

Container
File share
Table
Queue

Reference: <https://docs.microsoft.com/en-us/azure/storage/blobs/object-replication-overview>

Question #45 *Topic 3*

You have an on-premises server that contains a folder named D:\Folder1.

You need to copy the contents of D:\Folder1 to the public container in an Azure Storage account named contosodata.

Which command should you run?

- A. `https://contosodata.blob.core.windows.net/public`
- B. `azcopy sync D:\folder1 https://contosodata.blob.core.windows.net/public --snapshot`
- C. `azcopy copy D:\folder1 https://contosodata.blob.core.windows.net/public --recursive`
- D. `az storage blob copy start-batch D:\Folder1 https://contosodata.blob.core.windows.net/public`

**Correct Answer: C**

The azcopy copy command copies a directory (and all of the files in that directory) to a blob container. The result is a directory in the container by the same name.

Incorrect Answers:

B: The azcopy sync command replicates the source location to the destination location. However, the file is skipped if the last modified time in the destination is more recent.

D: The az storage blob copy start-batch command copies multiple blobs to a blob container.

Reference: <https://docs.microsoft.com/en-us/azure/storage/common/storage-use-azcopy-blobs>  
<https://docs.microsoft.com/en-us/azure/storage/common/storage-ref-azcopy-copy>

**Question #46 Topic 3**

You have an Azure subscription.

In the Azure portal, you plan to create a storage account named storage1 that will have the following settings:

- Performance: Standard
- Replication: Zone-redundant storage (ZRS)
- Access tier (default): Cool □

Hierarchical namespace: Disabled

You need to ensure that you can set Account kind for storage1 to BlockBlobStorage. Which setting should you modify first?

- A. Performance
- B. Replication
- C. Access tier (default)
- D. Hierarchical namespace

**Correct Answer: A** Reference: <https://docs.microsoft.com/en-us/azure/storage/common/storage-account-overview> <https://docs.microsoft.com/en-us/azure/storage/blobs/storage-blob-performance-tiers>

**Question #47 Topic 3 DRAG**

DROP -

You have an Azure subscription that contains the storage accounts shown in the following table.

Name	Azure Active Directory (Azure AD) authentication	Contents
storage1	Enabled	A blob container named container1 that has a public access level of No public access
storage2	Enabled	A file share named share1

You plan to use AzCopy to copy a blob from container1 directly to share1.

You need to identify which authentication method to use when you use AzCopy.

What should you identify for each account? To answer, drag the appropriate authentication methods to the correct accounts. Each method may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content. NOTE: Each correct selection is worth one point.

Select and Place:

Methods	Answer Area
OAuth	storage1: <input type="text"/> Method
Anonymous	storage2: <input type="text"/> Method
A storage account access key	
A shared access signature (SAS) token	

Correct

Answer:

Methods	Answer Area
OAuth	storage1: <input type="text"/> A shared access signature (SAS) token
Anonymous	storage2: <input type="text"/> A shared access signature (SAS) token
A storage account access key	
A shared access signature (SAS) token	

Box 1: A shared access signature (SAS) token.

You can provide authorization credentials by using Azure Active Directory (AD), or by using a Shared Access Signature (SAS) token.

For Blob storage you can use Azure AD & SAS.

Note: In the current release, if you plan to copy blobs between storage accounts, you'll have to append a SAS token to each source URL. You can omit the SAS token only from the destination URL.

Box 2: A shared access signature (SAS) token.

For File storage you can only use SAS.

Reference:

<https://docs.microsoft.com/en-us/azure/storage/common/storage-use-azcopy-v10>

Question #48 Topic 3

You create an Azure Storage account.

You plan to add 10 blob containers to the storage account.

For one of the containers, you need to use a different key to encrypt data at rest. What should you do before you create the container?

- A. Generate a shared access signature (SAS).
- B. Modify the minimum TLS version.
- C. Rotate the access keys.
- D. Create an encryption scope.

**Correct Answer: D**

Encryption scopes enable you to manage encryption with a key that is scoped to a container or an individual blob. You can use encryption scopes to create secure boundaries between data that resides in the same storage account but belongs to different customers.

Reference:

<https://docs.microsoft.com/en-us/azure/storage/blobs/encryption-scope-overview>

Question #49 Topic 3

HOTSPOT

You have an Azure subscription. The subscription contains a storage account named storage1 that has the lifecycle management rules shown in the following table.

Name	Blob prefix	If base were last modified more than (days ago)	Then
Rule1	container1/	3 days	Move to archive storage
Rule2	Not applicable	5 days	Move to cool storage
Rule3	container2/	10 days	Delete the blob
Rule4	container2/	15 days	Move to archive storage

On June 1, you store two blobs in storage1 as shown in the following table.

Name	Location	Access tier
File1	container1	Hot
File2	container2	Hot

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point.

## Answer Area

Statements	Yes	No
On June 6, File1 will be stored in the Cool access tier.	<input type="radio"/>	<input type="radio"/>
On June 1, File2 will be stored in the Cool access tier.	<input type="radio"/>	<input type="radio"/>
On June 16, File2 will be stored in the Archive access tier.	<input type="radio"/>	<input type="radio"/>

Correct

Answer:

## Answer Area

Statements	Yes	No
On June 6, File1 will be stored in the Cool access tier.	<input type="radio"/>	<input checked="" type="radio"/>
On June 1, File2 will be stored in the Cool access tier.	<input type="radio"/>	<input checked="" type="radio"/>
On June 16, File2 will be stored in the Archive access tier.	<input type="radio"/>	<input checked="" type="radio"/>

Question #50Topic 3

HOTSPOT

- You have an Azure subscription.

You plan to deploy a storage account named storage1 by using the following Azure Resource Manager (ARM) template.

```
{
    "$schema": "http://schema.management.azure.com/schemas/2015-01-01/deploymentTemplate.json#",
    "contentVersion": "1.0.0.0",
    "resources": [
        {
            "name": "storage1",
            "type": "Microsoft.Storage/storageAccounts",
            "apiVersion": "2021-08-01",
            "location": "East US",
            "properties": {
                "allowBlobPublicAccess": true,
                "defaultToOAuthAuthentication": false,
                "networkAcls": {
                    "bypass": "AzureServices",
                    "defaultAction": "Allow",
                    "ipRules": []
                }
            },
            "sku": {
                "name": "Standard_LRS"
            },
            "kind": "StorageV2"
        },
        [
            {
                "name": "storage1/default",
                "type": "Microsoft.Storage/storageAccounts/blobServices",
                "apiVersion": "2021-08-01",
                "properties": {
                    "restorePolicy": {
                        "enabled": true,
                        "days": 6
                    },
                    "deleteRetentionPolicy": {
                        "enabled": true,
                        "days": 7
                    },
                    "containerDeleteRetentionPolicy": {
                        "enabled": true,
                        "days": 7
                    },
                    "changeFeed": {
                        "enabled": true
                    },
                    "isVersioningEnabled": true
                },
                "dependsOn": [
                    "[concat('Microsoft.Storage/storageAccounts/', 'storage1')]"
                ]
            }
        ]
    }
}
```

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point.

Statements	Yes	No
Changes made to the data in storage1 can be rolled back after seven days.	<input type="radio"/>	<input type="radio"/>
Only users located in the East US Azure region can connect to storage1.	<input type="radio"/>	<input type="radio"/>
Three copies of storage1 will be maintained in the East US Azure region.	<input type="radio"/>	<input type="radio"/>

**Correct Answer:**

Statements	Yes	No
Changes made to the data in storage1 can be rolled back after seven days.	<input type="radio"/>	<input checked="" type="radio"/>
Only users located in the East US Azure region can connect to storage1.	<input type="radio"/>	<input checked="" type="radio"/>
Three copies of storage1 will be maintained in the East US Azure region.	<input checked="" type="radio"/>	<input type="radio"/>

**Question #51 Topic 3**

You have an on-premises server that contains a folder named D:\Folder1.

You need to copy the contents of D:\Folder1 to the public container in an Azure Storage account named contosodata.

Which command should you run?

)

- A. az storage blob copy start D:\Folder1 https://contosodata.blob.core.windows.net/public
- B. azcopy sync D:\folder1 https://contosodata.blob.core.windows.net/public --snapshot
- C. azcopy copy D:\folder1 https://contosodata.blob.core.windows.net/public --recursive
- D. az storage blob copy start-batch D:\Folder1 https://contosodata.blob.core.windows.net/public

**Correct Answer: C**

**Question #52 Topic 3**

HOTSPOT

-

You have an Azure subscription that contains a storage account named storage1. The storage1 account contains a container named container1.

You need to create a lifecycle management rule for storage1 that will automatically move the blobs in container1 to the lowest-cost tier after 90 days.

How should you complete the rule? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

```
{  
  "rules": [  
    {  
      "enabled": true,  
      "name": "rule1",  
      "type": "Lifecycle",  
      "definition": {  
        "actions": {  
          "baseBlob": {  
            "enableAutoTierToHotFromCool":{  
              "tierToArchive":{  
                "tierToCool":{  
                  "daysAfterModificationGreaterThan": 90  
                }  
              }  
            }  
          }  
        }  
      }  
    }  
  ]  
}  
***  
"filters": {  
  "blobIndexMatch": [  
    "blobTypes": [  
      "prefixMatch": [  
        "container1/"  
      ]  
    ]  
  ]  
}  
***
```

Correct

```
{  
    "rules": [  
        {  
            "enabled": true,  
            "name": "rule1",  
            "type": "Lifecycle",  
            "definition": {  
                "actions": {  
                    "baseBlob": {  
                        "enableAutoTierToHotFromCool":{  
                            "tierToArchive":{  
                                "tierToCool":{  
                                    "daysAfterModificationGreaterThan": 90  
                                }  
                            }  
                        }  
                    }  
                }  
            }  
        }  
    ]  
}
```

...  
"filters": {  
 "blobIndexMatch": [  
 "blobTypes": [  
 "prefixMatch": [  
 "container1/"

**Answer:** \*\*\*

Question #53 *Topic 3*

DRAG DROP

You have an Azure subscription that contains a virtual machine named VM1.  
You need to back up VM1. The solution must ensure that backups are stored across three availability zones in the primary region.

Which three actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.

Actions	Answer Area
Configure a replication policy.	
Set Replication to <b>Zone-redundant storage (ZRS)</b> .	
For VM1, create a backup policy and configure the backup.	
Set Replication to <b>Locally-redundant storage (LRS)</b> .	
Create a Recovery Services vault.	

**Answer Area**

Create a Recovery Services vault.

Set Replication to **Zone-redundant storage (ZRS)**.

For VM1, create a backup policy and configure the backup.

**Correct Answer:**

Question #54 *Topic 3*

You have an Azure subscription named Subscription1.

You have 5 TB of data that you need to transfer to Subscription1.

You plan to use an Azure Import/Export job.

What can you use as the destination of the imported data?

- A. an Azure Cosmos DB database
- B. Azure File Storage
- C. Azure SQL Database
- D. a virtual machine

**Correct Answer: B**

Question #55 *Topic 3*

You have an Azure subscription that contains the resources shown in the following table.

Name	Type
storage1	Storage account
container1	Blob container
table1	Storage table

You need to perform the tasks shown in the following table.

Name	Type
Task1	Create a new storage account.
Task2	Upload an append blob to container1.
Task3	Create a file share in storage1.
Task4	Add data to table1.

Which tasks can you perform by using Azure Storage Explorer?

- A. Task1 and Task3 only
- B. Task1, Task2, and Task3 only
- C. Task1, Task3, and Task4 only
- D. Task2, Task3, and Task4 only
- E. Task1, Task2, Task3, and Task4

**Correct Answer:** D

Question #56 *Topic 3*

HOTSPOT

You have an Azure AD user named User1 and a read-access geo-redundant storage (RA-GRS) account named contoso2023.

You need to meet the following requirements:

- User1 must be able to write blob data to contoso2023.
- The contoso2023 account must fail over to its secondary endpoint.

Which two settings should you configure? To answer, select the appropriate settings in the answer area.

NOTE: Each correct selection is worth one point.

# contoso2023

Storage account

- Search (Ctrl+ /)
- Diagnose and solve problems
- Access Control (IAM)
- Data migration
- Events
- Storage browser

## Data storage

- Containers
- File shares
- Queues
- Tables

## Security + networking

- Networking
- Azure CDN
- Access keys
- Shared access signature
- Encryption
- Microsoft Defender for Cloud

## Data management

- Geo-replication
- Data protection
- Object replication
- Blob inventory
- Static website
- Lifecycle management



#### Data storage

- Containers
- File shares
- Queues
- Tables

#### Security + networking

- Networking
- Azure CDN
- Access keys
- Shared access signature
- Encryption
- Microsoft Defender for Cloud

#### Data management

- Geo-replication** (this item is highlighted with a red box)
- Data protection
- Object replication
- Blob inventory
- Static website
- Lifecycle management

**Correct Answer:**

Question #57 *Topic 3*

You have an Azure subscription that contains a storage account named storage1.

You plan to create a blob container named container1.

You need to use customer-managed key encryption for container1.

Which key should you use?

- A. an EC key that uses the P-384 curve only
- B. an EC key that uses the P-521 curve only
- C. an EC key that uses the P-384 curve or P-521 curve only
- D. an RSA key with a key size of 4096 only
- E. an RSA key type with a key size of 2048, 3072, or 4096 only

**Correct Answer:** *E*

Question #58 *Topic 3*

HOTSPOT

-

You have an Azure subscription that contains a user named User1 and a storage account named storage1. The storage1 account contains the resources shown in the following table.

Name	Type
container1	Container
folder1	File share
Table1	Table

User1 is assigned the following roles for storage1:

- Storage Blob Data Reader
- Storage Table Data Contributor
- Storage File Data SMB Share Contributor

For storage1, you create a shared access signature (SAS) named SAS1 that has the settings shown in the following exhibit. (Click the Exhibit tab.)

**Allowed services** ⓘ

Blob  File  Queue  Table

**Allowed resource types** ⓘ

Service  Container  Object

**Allowed permissions** ⓘ

Read  Write  Delete  List  Add  Create  Update  Process  
 Immutable storage

**Blob versioning permissions** ⓘ

Enables deletion of versions

**Allowed blob index permissions** ⓘ

Read/Write  Filter

**Start and expiry date/time** ⓘ

Start   12:00:00 PM

End   12:00:00 PM

(UTC+01:00) Belgrade, Bratislava, Budapest, Ljubljana, Prague

**Allowed IP addresses** ⓘ

For example, 168.1.5.65 or 168.1.5.65-168.1.5.70

**Allowed protocols** ⓘ

HTTPS only  HTTPS and HTTP

**Preferred routing tier** ⓘ

Basic (default) Microsoft network routing Internet routing

**!** Some routing options are disabled because the endpoints are not published.

**Signing key** ⓘ

**Generate SAS and connection string**

To which resources can User1 write by using SAS1 and key1? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

## Answer Area

key1:

- Table1 only
- Table1 and container1 only
- folder1 and Table1 only
- folder1 and container1 only
- Table1, folder1, and container1

SAS1:

- Table1 only
- Table1 and container1 only
- folder1 and Table1 only
- folder1 and container1 only
- Table1, folder1, and container1

Correct

Answer:

## Answer Area

key1:

- Table1 only
- Table1 and container1 only
- folder1 and Table1 only**
- folder1 and container1 only
- Table1, folder1, and container1

SAS1:

- Table1 only
- Table1 and container1 only**
- folder1 and Table1 only
- folder1 and container1 only
- Table1, folder1, and container1

Question #59 Topic 3

HOTSPOT

You have an Azure subscription that contains the storage account shown in the following exhibit.

The screenshot shows the 'Access policy' section for a container named 'container1'. The left sidebar lists navigation options: Overview, Diagnose and solve problems, Access Control (IAM), Shared access tokens, Access policy (selected), Properties, and Metadata. The main area displays two existing policies: 'Policy1' (Identifier: Policy1, Start time: Not specified, Expiry time: Not specified, Permissions: rcw) and 'Policy2' (Identifier: Policy2, Start time: Not specified, Expiry time: Not specified, Permissions: c). A table for 'Immutable blob storage' is also present, showing a single row with Time-based retention set to '14 days' and Scope set to 'Container'. A 'Save' button is located at the top right of the main content area.

Use the drop-down menus to select the answer choice that completes each statement based on the information presented in the graphic

NOTE: Each correct selection is worth one point.

#### Answer Area

The maximum number of additional stored access policies that you can create for container1 is [answer choice].

0
1
3
5
6

The maximum number of additional immutable blob storage policies that you can create for container1 is [answer choice].

0
1
2
4
5

**Correct**

**Answer:**

#### Answer Area

The maximum number of additional stored access policies that you can create for container1 is [answer choice].

0
1
3
5
6

The maximum number of additional immutable blob storage policies that you can create for container1 is [answer choice].

0
1
2
4
5

Question #60Topic 3

You have an Azure subscription named Subscription1.

You have 5 TB of data that you need to transfer to Subscription1.

You plan to use an Azure Import/Export job.

What can you use as the destination of the imported data?

- A. Azure Blob Storage
- B. Azure Data Lake Store

- C. Azure SQL Database
- D. a virtual machine

**Correct Answer:** A

**Question #61Topic 3**

You have an Azure subscription. The subscription contains a storage account named storage1 that has the lifecycle management rules shown in the following table.

Name	If base blobs were last modified more than (days)	Then
Rule1	5 days	Move to cool storage
Rule2	5 days	Delete the blob
Rule3	5 days	Move to archive storage

On June 1, you store a blob named File1 in the Hot access tier of storage1.

What is the state of File1 on June 7?

- A. stored in the Cool access tier
- B. stored in the Archive access tier
- C. stored in the Hot access tier
- D. deleted

**Correct Answer:** D

**Question #62Topic 3**

HOTSPOT

You have an Azure subscription that contains the storage accounts shown in the following table.

Name	Kind	Redundancy
storage1	StorageV2	Geo-zone-redundant storage (GZRS)
storage2	BlobStorage	Read-access geo-redundant storage (RA-GRS)
storage3	BlockBlobStorage	Zone-redundant storage (ZRS)

You need to identify which storage accounts support lifecycle management, and which storage accounts support moving data to the Archive access tier.

Which storage accounts should you use? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

### Answer Area

Lifecycle management:

- storage1 only
- storage2 only
- storage1 and storage3 only
- storage2 and storage3 only
- storage1, storage2, and storage3

The Archive access tier:

- storage1 only
- storage2 only
- storage1 and storage3 only
- storage2 and storage3 only
- storage1, storage2, and storage3

**Correct**

**Answer:**

## Answer Area

Lifecycle management:

- storage1 only
- storage2 only
- storage1 and storage3 only
- storage2 and storage3 only
- storage1, storage2, and storage3**

The Archive access tier:

- storage1 only
- storage2 only**
- storage1 and storage3 only
- storage2 and storage3 only
- storage1, storage2, and storage3

Question #63Topic 3

You have an Azure subscription named Subscription1.

You have 5 TB of data that you need to transfer to Subscription1.

You plan to use an Azure Import/Export job.

What can you use as the destination of the imported data?

- A. an Azure Cosmos DB database
- B. Azure Data Lake Store
- C. Azure Blob storage
- D. Azure Data Factory

**Correct Answer: C**

Question #64Topic 3

HOTSPOT

You have an Azure subscription that contains a storage account named storage1. The storage1 account contains a container named container1.

You create a blob lifecycle rule named rule1.

You need to configure rule1 to automatically move blobs that were NOT updated for 45 days from contained to the Cool access tier.

How should you complete the rule? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

## Answer Area

```
{  
  "rules": [  
    {  
      "enabled": true,  
      "name": "rule1",  
      "type": "Lifecycle",  
      "definition": {  
        "actions": {  
          "baseBlob": {  
            "tierToCool": {  
              : 45  
              "daysAfterCreationGreater Than"  
              "daysAfterLastAccessTimeGreater Than"  
              "daysAfterModificationGreater Than"  
            }  
          }  
        },  
        "filters": {  
          "blobTypes": [  
            "AppendBlob"  
            "Blockblob"  
            "Pageblob"  
          ],  
          "prefixMatch": [  
            "container1"  
          ]  
        }  
      }  
    }  
  ]  
}
```

Correct

**Answer:**

### Answer Area

```
{  
  "rules": [  
    {  
      "enabled": true,  
      "name": "rule1",  
      "type": "Lifecycle",  
      "definition": {  
        "actions": {  
          "baseBlob": {  
            "tierToCool": {  
              "daysAfterCreationGreater Than"  
              "daysAfterLastAccessTimeGreater Than"  
              "daysAfterModificationGreater Than"  
            }  
          }  
        }  
      },  
      "filters": {  
        "blobTypes": [  
          "AppendBlob"  
          "Blockblob" "Blockblob"  
          "Pageblob"  
        ],  
        "prefixMatch": [  
          "container1"  
        ]  
      }  
    }  
  ]  
}
```

**Question #65 Topic 3**

You have an Azure subscription named Subscription1.

You have 5 TB of data that you need to transfer to Subscription1.

You plan to use an Azure Import/Export job.

What can you use as the destination of the imported data?

- A. an Azure Cosmos DB database
- B. Azure Blob Storage
- C. Azure SQL Database
- D. the Azure File Sync Storage Sync Service

**Correct Answer:** *B*

Question #66*Topic 3*

You plan to create an Azure Storage account named storage1 that will contain a file share named share1.

You need to ensure that share1 can support SMB Multichannel. The solution must minimize costs.

How should you configure storage?

- A. Premium performance with locally-redundant storage (LRS)
- B. Standard performance with zone-redundant storage (ZRS)
- C. Premium performance with geo-redundant storage (GRS)
- D. Standard performance with locally-redundant storage (LRS)

**Correct Answer:** *A*

Question #67*Topic 3*

You have an Azure subscription named Subscription1.

You have 5 TB of data that you need to transfer to Subscription1.

You plan to use an Azure Import/Export job.

What can you use as the destination of the imported data?

- A. Azure Data Lake Store
- B. Azure File Storage
- C. Azure SQL Database
- D. the Azure File Sync Storage Sync Service

**Correct Answer:** *B*

Question #68*Topic 3*

You have an Azure subscription that contains a storage account named storage1.

You plan to use conditions when assigning role-based access control (RBAC) roles to storage1.

Which storage1 services support conditions when assigning roles?

- A. containers only
- B. file shares only
- C. tables only
- D. queues only
- E. containers and queues only
- F. files shares and tables only

**Correct Answer:** E

Question #69 *Topic 3*

HOTSPOT

You have an Azure subscription that contains the resource groups shown in the following table.

Name	Region
RG1	West US
RG2	West US
RG3	East US

The subscription contains the virtual networks shown in the following table.

Name	Resource group	Region	Subnet	Subnet IP address space
VNet1	RG1	West US	Subnet1	10.1.0.0/16
VNet2	RG2	Central US	Subnet2	10.2.0.0/24
VNet3	RG3	East US	Subnet3	10.3.0.0/24

You plan to deploy the Azure Kubernetes Service (AKS) clusters shown in the following table.

Name	Resource group	Region	Number of nodes	Network configuration
AKS1	RG1	West US	30	Azure Container Network Interface (CNI)
AKS2	RG2	West US	100	Azure Container Network Interface (CNI)
AKS3	RG3	East US	50	Kubenet

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point.

## Answer Area

Statements	Yes	No
You can deploy AKS1 to VNet2.	<input type="radio"/>	<input type="radio"/>
You can deploy AKS2 to VNet1.	<input type="radio"/>	<input type="radio"/>
You can deploy AKS3 to VNet3.	<input type="radio"/>	<input type="radio"/>

Correct

Answer:

## Answer Area

Statements	Yes	No
You can deploy AKS1 to VNet2.	<input type="radio"/>	<input checked="" type="radio"/>
You can deploy AKS2 to VNet1.	<input checked="" type="radio"/>	<input type="radio"/>
You can deploy AKS3 to VNet3.	<input checked="" type="radio"/>	<input type="radio"/>

Question #70Topic 3

You plan to deploy several Azure virtual machines that will run Windows Server 2019 in a virtual machine scale set by using an Azure Resource Manager template.

You need to ensure that NGINX is available on all the virtual machines after they are deployed.

What should you use?

- A. the Publish-AzVMDscConfiguration cmdlet
- B. Azure Application Insights
- C. a Desired State Configuration (DSC) extension

- D. Azure AD Application Proxy

**Correct Answer: C**

#### **Topic 4 - Question Set 4**

Question #1 *Topic 4*

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You deploy an Azure Kubernetes Service (AKS) cluster named AKS1.

You need to deploy a YAML file to AKS1.

Solution: From Azure CLI, you run az aks. Does this meet the goal?

- A. Yes
- B. No

**Correct Answer: B**

Reference:

<https://docs.microsoft.com/en-us/azure/aks/kubernetes-walkthrough>

Question #2 *Topic 4*

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You deploy an Azure Kubernetes Service (AKS) cluster named AKS1.

You need to deploy a YAML file to AKS1.

Solution: From Azure CLI, you run the kubectl client. Does this meet the goal?

- A. Yes
- B. No

**Correct Answer: A**

Reference:

<https://docs.microsoft.com/en-us/azure/aks/kubernetes-walkthrough>

Question #3 *Topic 4*

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You deploy an Azure Kubernetes Service (AKS) cluster named AKS1.

You need to deploy a YAML file to AKS1.

Solution: From Azure CLI, you run azcopy. Does this meet the goal?

- A. Yes
- B. No

**Correct Answer: B**

Reference:

<https://docs.microsoft.com/en-us/azure/aks/kubernetes-walkthrough>

**Question #4 Topic 4**

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have an Azure virtual machine named VM1 that runs Windows Server 2016.

You need to create an alert in Azure when more than two error events are logged to the System event log on VM1 within an hour.

Solution: You create an Azure storage account and configure shared access signatures (SASs). You install the Microsoft Monitoring Agent on VM1. You create an alert in Azure Monitor and specify the storage account as the source. Does that meet the goal?

- »
- A. Yes
  - B. No

**Correct Answer: B**

Instead: You create an Azure Log Analytics workspace and configure the data settings. You install the Microsoft Monitoring Agent on VM1. You create an alert in Azure Monitor and specify the Log Analytics workspace as the source.

Reference:

<https://docs.microsoft.com/en-us/azure/azure-monitor/platform/agents-overview>

**Question #5 Topic 4**

HOTSPOT -

You have an Azure subscription named Subscription1. Subscription1 contains the resources in the following table.

Name	Type
RG1	Resource group
RG2	Resource group
VNet1	Virtual network
VNet2	Virtual network

VNet1 is in RG1. VNet2 is in RG2. There is no connectivity between VNet1 and VNet2.

An administrator named Admin1 creates an Azure virtual machine named VM1 in RG1. VM1 uses a disk named Disk1 and connects to VNet1. Admin1 then installs a custom application in VM1.

You need to move the custom application to VNet2. The solution must minimize administrative effort.

Which two actions should you perform? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

### Answer Area

First action:

- Create a network interface in RG2.
- Detach a network interface.
- Delete VM1.
- Move a network interface to RG2.

Second action:

- Attach a network interface.
- Create a network interface in RG2.
- Create a new virtual machine.
- Move VM1 to RG2.

Correct

Answer:

## Answer Area

First action:

- Create a network interface in RG2.
- Detach a network interface.
- Delete VM1.**
- Move a network interface to RG2.

Second action:

- Attach a network interface.
- Create a network interface in RG2.
- Create a new virtual machine.**
- Move VM1 to RG2.

We cannot just move a virtual machine between networks. What we need to do is identify the disk used by the VM, delete the VM itself while retaining the disk, and recreate the VM in the target virtual network and then attach the original disk to it.

Reference: <https://blogs.technet.microsoft.com/canitpro/2014/06/16/step-by-step-move-a-vm-to-a-different-vnet-on-azure/> <https://4sysops.com/archives/move-an-azure-vm-to-another-virtual-network-vnet/#migrate-an-azure-vm-between-vnets> Question #6Topic 4

You download an Azure Resource Manager template based on an existing virtual machine. The template will be used to deploy 100 virtual machines.

You need to modify the template to reference an administrative password. You must prevent the password from being stored in plain text. What should you create to store the password?

- A. an Azure Key Vault and an access policy
- B. an Azure Storage account and an access policy
- C. a Recovery Services vault and a backup policy
- D. Azure Active Directory (AD) Identity Protection and an Azure policy

**Correct Answer: A**

You can use a template that allows you to deploy a simple Windows VM by retrieving the password that is stored in a Key Vault. Therefore, the password is never put in plain text in the template parameter file.

Reference:

<https://azure.microsoft.com/en-us/resources/templates/101-vm-secure-password/>

Question #7Topic 4

HOTSPOT -

You have the App Service plans shown in the following table.

Name	Operating system	Location
ASP1	Windows	West US
ASP2	Windows	Central US
ASP3	Linux	West US

You plan to create the Azure web apps shown in the following table.

Name	Runtime stack	Location
WebApp1	.NET Core 3.0	West US
WebApp2	ASP.NET 4.7	West US

You need to identify which App Service plans can be used for the web apps.

What should you identify? To answer, select the appropriate options in the answer area. NOTE:  
Each correct selection is worth one point.

Hot Area:

## Answer Area

WebApp1:

ASP1 only
ASP3 only
ASP1 and ASP2 only
ASP1 and ASP3 only
ASP1, ASP2, and ASP3

WebApp2:

ASP1 only
ASP3 only
ASP1 and ASP2 only
ASP1 and ASP3 only
ASP1, ASP2, and ASP3

Correct

Answer:

## Answer Area

WebApp1:

ASP1 only
ASP3 only
ASP1 and ASP2 only
ASP1 and ASP3 only
ASP1, ASP2, and ASP3

WebApp2:

ASP1 only
ASP3 only
ASP1 and ASP2 only
ASP1 and ASP3 only
ASP1, ASP2, and ASP3

Box 1: ASP1 ASP3 -

Asp1, ASP3: ASP.NET Core apps can be hosted both on Windows or Linux.

Not ASP2: The region in which your app runs is the region of the App Service plan it's in.

Box 2: ASP1 -

ASP.NET apps can be hosted on Windows only.

Reference:

<https://docs.microsoft.com/en-us/azure/app-service/quickstart-dotnetcore?pivots=platform-linux>

<https://docs.microsoft.com/en-us/azure/app-service/app-service-plan-manage#>

Question #8 *Topic 4 HOTSPOT*

- You create a virtual machine scale set named Scale1. Scale1 is configured as shown in the following exhibit.

## Create a virtual machine scale set

Basics Disks Networking Scaling Management Health Advanced

An Azure virtual machine scale set can automatically increase or decrease the number of VM instances that run your application. This automated and elastic behavior reduces the management overhead to monitor and optimize the performance of your application. [Learn more about VMSS scaling](#)

### Instance

Initial instance count \*

### Scaling

Scaling policy

Manual  Custom

Minimum number of VMs \*

Maximum number of VMs \*

### Scale out

CPU threshold (%)\*

Duration in minutes \*

Number of VMs to increase by \*

### Scale in

CPU threshold (%)\*

Number of VMs to decrease by \*

### Diagnostic logs

Collect diagnostic logs from Autoscale   Disabled  Enabled

**Review + create**

< Previous

Next: Management >

Use the drop-down menus to select the answer choice that completes each statement based on the information presented in the graphic.

NOTE: Each correct selection is worth one point.

Hot Area:

## Answer Area

If Scale1 is utilized at 85 percent for six minutes after it is deployed, Scale1 will be running [answer choice].

▼
2 virtual machines
4 virtual machines
6 virtual machines
10 virtual machines
20 virtual machines

If Scale1 is first utilized at 25 percent for six minutes after it is deployed, and then utilized at 50 percent for six minutes, Scale1 will be running [answer choice].

▼
2 virtual machines
4 virtual machines
6 virtual machines
8 virtual machines
10 virtual machines

Correct

Answer:

## Answer Area

If Scale1 is utilized at 85 percent for six minutes after it is deployed, Scale1 will be running [answer choice].

▼
2 virtual machines
4 virtual machines
6 virtual machines
10 virtual machines
20 virtual machines

If Scale1 is first utilized at 25 percent for six minutes after it is deployed, and then utilized at 50 percent for six minutes, Scale1 will be running [answer choice].

▼
2 virtual machines
4 virtual machines
6 virtual machines
8 virtual machines
10 virtual machines

Box 1: 6 virtual machines -

The Autoscale scale out rule increases the number of VMs by 2 if the CPU threshold is 80% or higher. The initial instance count is 4 and rises to 6 when the 2 extra instances of VMs are added.

Box 2: 2 virtual machines -

The Autoscale scale in rule decreases the number of VMs by 4 if the CPU threshold is 30% or lower. The initial instance count is 4 and thus cannot be reduced to

0 as the minimum instances is set to 2. Instances are only added when the CPU threshold reaches 80%.

Reference: <https://docs.microsoft.com/en-us/azure/azure-monitor/platform/autoscale-overview>

<https://docs.microsoft.com/en-us/azure/azure-monitor/platform/autoscale-best-practices>

<https://docs.microsoft.com/en-us/azure/azure-monitor/platform/autoscale-common-scale-patterns>

Question #9 Topic 4

You plan to automate the deployment of a virtual machine scale set that uses the Windows Server 2016 Datacenter image.

You need to ensure that when the scale set virtual machines are provisioned, they have web server components installed.

Which two actions should you perform? Each correct answer presents part of the solution. NOTE: Each correct selection is worth one point.

- A. Upload a configuration script
- B. Create an automation account
- C. Create an Azure policy
- D. Modify the extensionProfile section of the Azure Resource Manager template
- E. Create a new virtual machine scale set in the Azure portal

**Correct Answer: DA**

Virtual Machine Scale Sets can be used with the Azure Desired State Configuration (DSC) extension handler. Virtual machine scale sets provide a way to deploy and manage large numbers of virtual machines, and can elastically scale in and out in response to load. DSC is used to configure the VMs as they come online so they are running the production software.

Reference:

<https://docs.microsoft.com/en-us/azure/virtual-machine-scale-sets/virtual-machine-scale-sets-dsc>

Question #10 Topic 4 HOTSPOT

You have an Azure Kubernetes Service (AKS) cluster named AKS1 and a computer named Computer1 that runs Windows 10. Computer1 that has the Azure CLI installed.

You need to install the kubectl client on Computer1.

Which command should you run? To answer, select the appropriate options in the answer area. NOTE: Each correct selection is worth one point.

Hot Area:

## Answer Area

az
docker
msiexec.exe
Install-Module

aks
/package
-name
pull

Install-cli

**Correct**

**Answer:**

## Answer Area

az docker msiexec.exe Install-Module	aks /package -name pull	Install-cli
---	----------------------------------	-------------

To install kubectl locally, use the az aks install-cli command: az aks install-cli

Reference: <https://docs.microsoft.com/en-us/azure/aks/kubernetes-walkthrough>

Question #11 Topic 4

DRAG DROP -

You onboard 10 Azure virtual machines to Azure Automation State Configuration.

You need to use Azure Automation State Configuration to manage the ongoing consistency of the virtual machine configurations.

Which three actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.

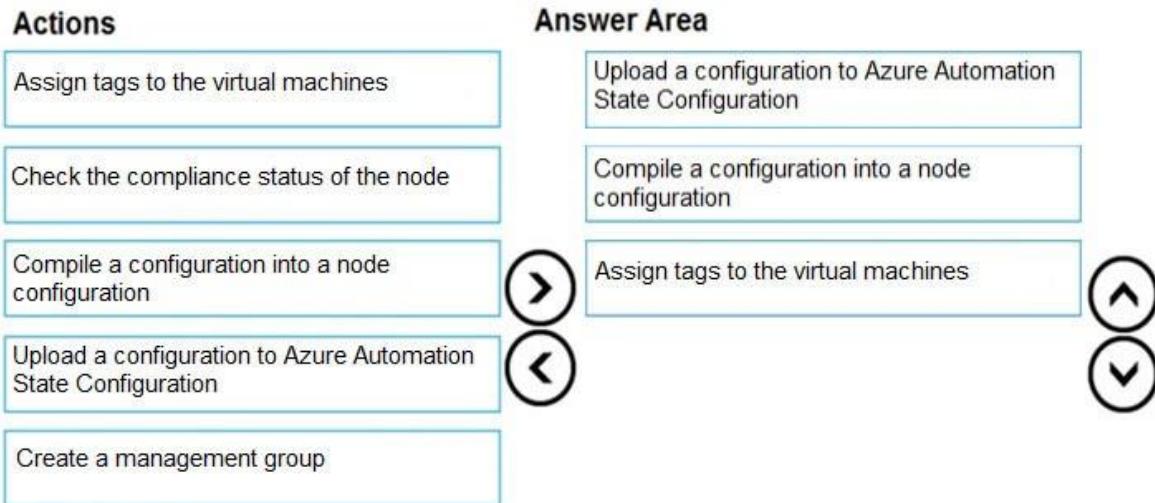
NOTE: More than one order of answer choices is correct. You will receive credit for any of the correct orders you select.

Select and Place:

Actions	Answer Area
Assign tags to the virtual machines	
Check the compliance status of the node	
Compile a configuration into a node configuration	>
Upload a configuration to Azure Automation State Configuration	<
Create a management group	↑ ↓

**Correct**

**Answer:**



Step 1: Upload a configuration to Azure Automation State Configuration.

Import the configuration into the Automation account.

Step 2: Compile a configuration into a node configuration.

A DSC configuration defining that state must be compiled into one or more node configurations (MOF document), and placed on the Automation DSC Pull Server.

Step 3: Assign the node configuration

Then: Check the compliance status of the node

Each time Azure Automation State Configuration performs a consistency check on a managed node, the node sends a status report back to the pull server. You can view these reports on the page for that node.

On the blade for an individual report, you can see the following status information for the corresponding consistency check:

The report status indicates whether the node is "Compliant", the configuration "Failed", or the node is "Not Compliant". Reference: <https://docs.microsoft.com/en-us/azure/automation/automation-dsc-getting-started>

Question #12 Topic 4

You have an Azure Resource Manager template named Template1 that is used to deploy an Azure virtual machine.

Template1 contains the following text:

```

"location": {
    "type": "String",
    "defaultValue": "eastus",
    "allowedValues": [
        "canadacentral",
        "eastus",
        "westeurope",
        "westus" ]
}
  
```

The variables section in Template1 contains the following text:

"location": "westeurope"

The resources section in Template1 contains the following text:

```
"type": "Microsoft.Compute/virtualMachines",
"apiVersion": "2018-10-01",
"name": "[variables('vmName')]",
"location": "westeurope",
```

You need to deploy the virtual machine to the West US location by using Template1. What should you do?

- A. Modify the location in the resources section to westus
- B. Select West US during the deployment
- C. Modify the location in the variables section to westus

**Correct Answer:** A

Question #13 *Topic 4*

You create an App Service plan named Plan1 and an Azure web app named webapp1.

You discover that the option to create a staging slot is unavailable.

You need to create a staging slot for Plan1. What should you do first?

- A. From Plan1, scale up the App Service plan
- B. From webapp1, modify the Application settings
- C. From webapp1, add a custom domain
- D. From Plan1, scale out the App Service plan

»

**Correct Answer:** A

The app must be running in the Standard, Premium, or Isolated tier in order for you to enable multiple deployment slots.

If the app isn't already in the Standard, Premium, or Isolated tier, you receive a message that indicates the supported tiers for enabling staged publishing. At this point, you have the option to select Upgrade and go to the Scale tab of your app before continuing.

Scale up: Get more CPU, memory, disk space, and extra features like dedicated virtual machines (VMs), custom domains and certificates, staging slots, autoscaling, and more.

Incorrect:

Scale out: Increase the number of VM instances that run your app. You can scale out to as many as 30 instances  
Reference: <https://docs.microsoft.com/en-us/azure/app-service/deploy-staging-slots>  
<https://docs.microsoft.com/en-us/azure/app-service/manage-scale-up>

Question #14 *Topic 4*

You plan to move a distributed on-premises app named App1 to an Azure subscription.

After the planned move, App1 will be hosted on several Azure virtual machines.

You need to ensure that App1 always runs on at least eight virtual machines during planned Azure maintenance.

What should you create?

- A. one virtual machine scale set that has 10 virtual machines instances
- B. one Availability Set that has three fault domains and one update domain
- C. one Availability Set that has 10 update domains and one fault domain
- D. one virtual machine scale set that has 12 virtual machines instances

**Correct Answer:A**

An update domain is a logical group of underlying hardware that can undergo maintenance or be rebooted at the same time. As you create VMs within an availability set, the Azure platform automatically distributes your VMs across these update domains. This approach ensures that at least one instance of your application always remains running as the Azure platform undergoes periodic maintenance.

Reference:

<http://www.thatlazyadmin.com/azure-fault-update-domains/>

**Question #15Topic 4**

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have an Azure virtual machine named VM1 that runs Windows Server 2016.

You need to create an alert in Azure when more than two error events are logged to the System event log on VM1 within an hour.

Solution: You create an event subscription on VM1. You create an alert in Azure Monitor and specify VM1 as the source

Does this meet the goal?

- A. Yes
- B. No

**Correct Answer: B**

Instead: You create an Azure Log Analytics workspace and configure the data settings. You install the Microsoft Monitoring Agent on VM1. You create an alert in Azure Monitor and specify the Log Analytics workspace as the source.

Reference:

<https://docs.microsoft.com/en-us/azure/azure-monitor/platform/agents-overview>

**Question #16Topic 4**

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have an Azure virtual machine named VM1. VM1 was deployed by using a custom Azure Resource Manager template named ARM1.json.

You receive a notification that VM1 will be affected by maintenance.

You need to move VM1 to a different host immediately.

Solution: From the Overview blade, you move the virtual machine to a different subscription. Does this meet the goal?

- A. Yes
- B. No

**Correct Answer: B**

You would need to redeploy the VM.

Reference:

<https://docs.microsoft.com/en-us/azure/virtual-machines/windows/redeploy-to-new-node>

**Question #17Topic 4**

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have an Azure virtual machine named VM1. VM1 was deployed by using a custom Azure Resource Manager template named ARM1.json.

You receive a notification that VM1 will be affected by maintenance.

You need to move VM1 to a different host immediately.

Solution: From the Redeploy blade, you click Redeploy. Does this meet the goal?

- A. Yes
- B. No

**Correct Answer: A**

When you redeploy a VM, it moves the VM to a new node within the Azure infrastructure and then powers it back on, retaining all your configuration options and associated resources.

References:

<https://docs.microsoft.com/en-us/azure/virtual-machines/windows/redeploy-to-new-node>

**Question #18Topic 4**

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have an Azure virtual machine named VM1. VM1 was deployed by using a custom Azure Resource Manager template named ARM1.json.

You receive a notification that VM1 will be affected by maintenance.

You need to move VM1 to a different host immediately.

Solution: From the Update management blade, you click Enable. Does this meet the goal?

- A. Yes
- B. No

**Correct Answer: B**

You would need to redeploy the VM.

Reference:

<https://docs.microsoft.com/en-us/azure/virtual-machines/windows/redeploy-to-new-node>

Question #19 *Topic 4*

You have an Azure subscription that contains a web app named webapp1.

You need to add a custom domain named www.contoso.com to webapp1. What should you do first?

- A. Create a DNS record
- B. Add a connection string
- C. Upload a certificate.
- D. Stop webapp1.

**Correct Answer: A**

You can use either a CNAME record or an A record to map a custom DNS name to App Service.

Reference:

<https://docs.microsoft.com/en-us/Azure/app-service/app-service-web-tutorial-custom-domain>

Question #20 *Topic 4*

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have an Azure subscription that contains the resources shown in the following table.

Name	Type	Region
RG1	Resource group	West US
RG2	Resource group	East Asia
storage1	Storage account	West US
storage2	Storage account	East Asia
VM1	Virtual machine	West US
VNET1	Virtual network	West US
VNET2	Virtual network	East Asia

VM1 connects to VNET1.

You need to connect VM1 to VNET2.

Solution: You move VM1 to RG2, and then you add a new network interface to VM1. Does this meet the goal?

- A. Yes
- B. No

**Correct Answer: B**

Instead you should delete VM1. You recreate VM1, and then you add the network interface for VM1.

Note: When you create an Azure virtual machine (VM), you must create a virtual network (VNet) or use an existing VNet. You can change the subnet a VM is connected to after it's created, but you cannot change the VNet.

Reference:

<https://docs.microsoft.com/en-us/azure/virtual-machines/windows/network-overview>

**Question #21Topic 4**

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have an Azure subscription that contains the resources shown in the following table.

Name	Type	Region
RG1	Resource group	West US
RG2	Resource group	East Asia
storage1	Storage account	West US
storage2	Storage account	East Asia
VM1	Virtual machine	West US
VNET1	Virtual network	West US
VNET2	Virtual network	East Asia

VM1 connects to VNET1.

You need to connect VM1 to VNET2.

Solution: You delete VM1. You recreate VM1, and then you create a new network interface for VM1 and connect it to VNET2. Does this meet the goal?

- A. Yes
- B. No

**Correct Answer: A**

You should delete VM1. You recreate VM1, and then you add the network interface for VM1.

Note: When you create an Azure virtual machine (VM), you must create a virtual network (VNet) or use an existing VNet. You can change the subnet a VM is connected to after it's created, but you cannot change the VNet.

Reference:

<https://docs.microsoft.com/en-us/azure/virtual-machines/windows/network-overview>

Question #22 *Topic 4*

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have an Azure subscription that contains the resources shown in the following table.

Name	Type	Region
RG1	Resource group	West US
RG2	Resource group	East Asia
storage1	Storage account	West US
storage2	Storage account	East Asia
VM1	Virtual machine	West US
VNET1	Virtual network	West US
VNET2	Virtual network	East Asia

VM1 connects to VNET1.

You need to connect VM1 to VNET2.

Solution: You turn off VM1, and then you add a new network interface to VM1. Does this meet the goal?

- A. Yes
- B. No

**Correct Answer: B**

Instead you should delete VM1. You recreate VM1, and then you add the network interface for VM1.

Note: When you create an Azure virtual machine (VM), you must create a virtual network (VNet) or use an existing VNet. You can change the subnet a VM is connected to after it's created, but you cannot change the VNet.

Reference:

<https://docs.microsoft.com/en-us/azure/virtual-machines/windows/network-overview>

Question #23 *Topic 4 HOTSPOT*

-

You have an Azure subscription named Subscription1 that contains the quotas shown in the following table.

<b>Quota</b>	<b>Location</b>	<b>Usage</b>
Standard BS Family vCPUs	West US	0 of 20
Standard D Family vCPUs	West US	0 of 20
Total Regional vCPUs	West US	0 of 20

You deploy virtual machines to Subscription1 as shown in the following table.

<b>Name</b>	<b>Size</b>	<b>vCPUs</b>	<b>Location</b>	<b>Status</b>
VM1	Standard_B2ms	2	West US	Running
VM2	Standard_B16ms	16	West US	Stopped (Deallocated)

You plan to deploy the virtual machines shown in the following table.

<b>Name</b>	<b>Size</b>	<b>vCPUs</b>
VM3	Standard_B2ms	1
VM4	Standard_D4s_v3	4
VM5	Standard_B16ms	16

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point. Hot Area:

### Answer Area

<b>Statements</b>	<b>Yes</b>	<b>No</b>
You can deploy VM3 to West US.	<input type="radio"/>	<input type="radio"/>
You can deploy VM4 to West US.	<input type="radio"/>	<input type="radio"/>
You can deploy VM5 to West US.	<input type="radio"/>	<input type="radio"/>

**Correct**

**Answer:**

## Answer Area

Statements	Yes	No
You can deploy VM3 to West US.	<input checked="" type="radio"/>	<input type="radio"/>
You can deploy VM4 to West US.	<input type="radio"/>	<input checked="" type="radio"/>
You can deploy VM5 to West US.	<input type="radio"/>	<input checked="" type="radio"/>

The total regional vCPUs is 20 so that means a maximum total of 20 vCPUs across all the different VM sizes. The deallocated VM with 16 vCPUs counts towards the total. VM20 and VM1 are using 18 of the maximum 20 vCPUs leaving only two vCPUs available.

Reference: <https://docs.microsoft.com/en-us/azure/virtual-machines/windows/quotas>

Question #24 Topic 4 HOTSPOT

- You have an Azure subscription that contains an Azure Availability Set named WEBPROD-AS-USE2 as shown in the following exhibit.

```
PS Azure:\> az vm availability-set list -g RG1
[
  {
    "id": "/subscriptions/8372f433-2dcd-4361-b5ef-5b188fed87d0/resourceGroups/RG1/providers/Microsoft.Compute/availabilitySets/WEBPROD-AS-USE2",
    "location": "eastus2",
    "name": "WEBPROD-AS-USE2",
    "platformFaultDomainCount": 2,
    "platformUpdateDomainCount": 10,
    "proximityPlacementGroup": null,
    "resourceGroup": "RG1",
    "sku": {
      "capacity": null,
      "name": "Aligned",
      "tier": null
    },
    "statuses": null,
    "tags": {},
    "type": "Microsoft.Compute/availabilitySets",
    "virtualMachines": []
  }
]
```

You add 14 virtual machines to WEBPROD-AS-USE2.

Use the drop-down menus to select the answer choice that completes each statement based on the information presented in the graphic.

NOTE: Each correct selection is worth one point. Hot Area:

### Answer Area

When Microsoft performs planned maintenance in East US 2, the maximum number of unavailable virtual machines will be [answer choice].

2
7
10
14

If the server rack in the Azure datacenter that hosts WEBPROD-AS-USE2 experiences a power failure, the maximum number of unavailable virtual machines will be [answer choice].

2
7
10
14

Correct

Answer:

### Answer Area

When Microsoft performs planned maintenance in East US 2, the maximum number of unavailable virtual machines will be [answer choice].

2
7
10
14

If the server rack in the Azure datacenter that hosts WEBPROD-AS-USE2 experiences a power failure, the maximum number of unavailable virtual machines will be [answer choice].

2
7
10
14

Box 1: 2 -

There are 10 update domains. The 14 VMs are shared across the 10 update domains so four update domains will have two VMs and six update domains will have one VM. Only one update domain is rebooted at a time. Therefore, a maximum of two VMs will be offline.

Box 2: 7 -

There are 2 fault domains. The 14 VMs are shared across the 2 fault domains, so 7 VMs in each fault domain. A rack failure will affect one fault domain so 7 VMs will be offline.

Reference: <https://docs.microsoft.com/en-us/azure/virtual-machines/windows/manage-availability>

Question #25 Topic 4

You deploy an Azure Kubernetes Service (AKS) cluster named Cluster1 that uses the IP addresses shown in the following table.

IP address	Assigned to
131.107.2.1	Load balancer front end
192.168.10.2	Kubernetes DNS service
172.17.7.1	Docket bridge address
10.0.10.11	Kubernetes cluster node

You need to provide internet users with access to the applications that run in Cluster1. Which IP address should you include in the DNS record for Cluster1?

- A. 131.107.2.1
- B. 10.0.10.11
- C. 172.17.7.1
- D. 192.168.10.2

**Correct Answer:** A

#### Question #26 *Topic 4*

You have a deployment template named Template1 that is used to deploy 10 Azure web apps. You need to identify what to deploy before you deploy Template1. The solution must minimize Azure costs.

What should you identify?

- A. five Azure Application Gateways
- B. one App Service plan
- C. 10 App Service plans
- D. one Azure Traffic Manager
- E. one Azure Application Gateway

**Correct Answer:** B

You create Azure web apps in an App Service plan.

Reference:

<https://docs.microsoft.com/en-us/azure/app-service/overview-hosting-plans>

#### Question #27 *Topic 4 HOTSPOT*

You plan to deploy an Azure container instance by using the following Azure Resource Manager template.



```
{  
  "type": "Microsoft.ContainerInstance/containerGroups",  
  "apiVersion": "2018-10-01",  
  "name": "webprod",  
  "location": "westus",  
  "properties": {  
    "containers": [  
      {  
        "name": "webprod",  
        "properties": {  
          "image": "microsoft/iis:nanoserver",  
          "ports": [  
            {  
              "protocol": "TCP",  
              "port": 80  
            }  
          ],  
          "environmentVariables": [ ],  
          "resources": {  
            "requests": {  
              "memoryInGB": 1.5,  
              "cpu": 1  
            }  
          }  
        }  
      }  
    ],  
    "restartPolicy": "OnFailure",  
    "ipAddress": {  
      "ports": [  
        {  
          "protocol": "TCP",  
          "port": 80  
        }  
      ],  
      "ip": "[parameters('IPAddress')]",  
      "type": "Public"  
    },  
    "osType": "Windows"  
  }  
}
```

Use the drop-down menus to select the answer choice that completes each statement based on the information presented in the template.

NOTE: Each correct selection is worth one point. Hot

Area:

### Answer Area

Internet users [answer choice].

can connect to the container from any device
cannot connect to the container
can only connect to the container from devices that run Windows

If Internet Information Services (IIS) in the container fail, [answer choice].

the container will restart automatically
the container will only restart manually
the container must be redeployed

Correct

Answer:

### Answer Area

Internet users [answer choice].

can connect to the container from any device
cannot connect to the container
can only connect to the container from devices that run Windows

If Internet Information Services (IIS) in the container fail, [answer choice].

the container will restart automatically
the container will only restart manually
the container must be redeployed

Question #28Topic 4

You have an Azure subscription that contains a virtual machine named VM1. VM1 hosts a line-of-business application that is available 24 hours a day. VM1 has one network interface and one managed disk. VM1 uses the D4s v3 size.

You plan to make the following changes to VM1:

- Change the size to D8s v3.
- Add a 500-GB managed disk.
- Add the Puppet Agent extension.
- Enable Desired State Configuration Management. Which change will cause downtime for VM1?

- A. Enable Desired State Configuration Management
- B. Add a 500-GB managed disk
- C. Change the size to D8s v3
- D. Add the Puppet Agent extension

Correct Answer: C

While resizing the VM it must be in a stopped state.

Reference: <https://azure.microsoft.com/en-us/blog/resize-virtual-machines/>

Question #29Topic 4

You have an app named App1 that runs on an Azure web app named webapp1.

The developers at your company upload an update of App1 to a Git repository named Git1. Webapp1 has the deployment slots shown in the following table.

Name	Function
webapp1-prod	Production
webapp1-test	Staging

You need to ensure that the App1 update is tested before the update is made available to users.

Which two actions should you perform? Each correct answer presents part of the solution. NOTE:  
Each correct selection is worth one point.

- A. Swap the slots
- B. Deploy the App1 update to webapp1-prod, and then test the update
- C. Stop webapp1-prod
- D. Deploy the App1 update to webapp1-test, and then test the update
- E. Stop webapp1-test

**Correct Answer:** AD

Question #30Topic 4

You have an Azure subscription named Subscription1 that has the following providers registered: ☐ Authorization

- ☐ Automation
- ☐ Resources
- ☐ Compute
- ☐ KeyVault
- ☐ Network
- ☐ Storage
- ☐ Billing
- ☐ Web

Subscription1 contains an Azure virtual machine named VM1 that has the following configurations:

- ☐ Private IP address: 10.0.0.4 (dynamic)
- ☐ Network security group (NSG): NSG1
- ☐ Public IP address: None
- ☐ Availability set: AVSet
- ☐ Subnet: 10.0.0.0/24
- ☐ Managed disks: No
- ☐ Location: East US

You need to record all the successful and failed connection attempts to VM1.

Which three actions should you perform? Each correct answer presents part of the solution. NOTE:  
Each correct selection is worth one point.

- A. Enable Azure Network Watcher in the East US Azure region.
- B. Add an Azure Network Watcher connection monitor.
- C. Register the MicrosoftLogAnalytics provider.
- D. Create an Azure Storage account.
- E. Register the Microsoft.Insights resource provider.
- F. Enable Azure Network Watcher flow logs.

**Correct Answer:** DEF

You can log network traffic that flows through an NSG with Network Watcher's NSG flow log capability.

- ⇒ In the Azure portal, enable Network Watcher
- ⇒ Register Insights provider. NSG flow logging requires the Microsoft.Insights provider.
- ⇒ Enable NSG flow log. NSG flow log data is written to an Azure Storage account, Subscription1 has storage. Reference:  
<https://docs.microsoft.com/en-us/azure/network-watcher/network-watcher-nsg-flow-logging-portal>

**Question #31 Topic 4**

You need to deploy an Azure virtual machine scale set that contains five instances as quickly as possible. What should you do?

- A. Deploy five virtual machines. Modify the Availability Zones settings for each virtual machine.
- B. Deploy five virtual machines. Modify the Size setting for each virtual machine.
- C. Deploy one virtual machine scale set that is set to VM (virtual machines) orchestration mode.
- D. Deploy one virtual machine scale set that is set to ScaleSetVM orchestration mode.

**Correct Answer:** D

Reference:

<https://docs.microsoft.com/en-us/azure/virtual-machine-scale-sets/orchestration-modes>

**Question #32 Topic 4**

You plan to create the Azure web apps shown in the following table.

Name	Runtime stack
WebApp1	.NET Core 3.1(LTS)
WebApp2	ASP.NET V4.8
WebApp3	PHP 7.3
WebApp4	Ruby 2.6

What is the minimum number of App Service plans you should create for the web apps?

- A. 1
- B. 2
- C. 3
- D. 4

**Correct Answer: B**

Question #33 Topic 4 HOTSPOT

You have a pay-as-you-go Azure subscription that contains the virtual machines shown in the following table.

Name	Resource group	Daily cost
VM1	RG1	20 euros
VM2	RG2	30 euros

You create the budget shown in the following exhibit.

**Budget1**  
Resource group

---

Edit budget   Delete budget

CURRENT SPEND  
**5.93 EUR**

Budget  
1,000.00 EUR

**BUDGET SUMMARY**

Name	Budget1
Scope	RG1 (Resource group)
Filters	-
Amount	1,000.00 EUR
Budget period	Resets billing month
Start date	6/20/2019
End date	6/19/2021

**BUDGET ALERTS**

Alert conditions	% OF BUDGET	AMOUNT	ACTION GROUP	ACTION GROUP
	50%	€500	AG1	1 Email
	70%	€700	AG2	1 SMS
	100%	€1,000	AG3	1 Azure app
Alert recipients (email)	User1@Contoso.com			

The AG1 action group contains a user named admin@contoso.com only.

Use the drop-down menus to select the answer choice that completes each statement based on the information presented in the graphic.

Hot Area:

### Answer Area

When the maximum amount in Budget1 is reached, [answer choice].

VM1 and VM2 are turned off
VM1 and VM2 continue to run
VM1 is turned off, and VM2 continues to run

Based on the current usage costs of the virtual machines, [answer choice].

no email notifications will be sent each month
one email notification will be sent each month
two email notifications will be sent each month
three email notifications will be sent each month

Correct

Answer:

### Answer Area

When the maximum amount in Budget1 is reached, [answer choice].

VM1 and VM2 are turned off
VM1 and VM2 continue to run
VM1 is turned off, and VM2 continues to run

Based on the current usage costs of the virtual machines, [answer choice].

no email notifications will be sent each month
one email notification will be sent each month
two email notifications will be sent each month
three email notifications will be sent each month

Box 1: VM1 and VM2 continue to run

The budget alerts are for Resource Group RG1, which include VM1, but not VM2. However, when the budget thresholds you've created are exceeded, only notifications are triggered. None of your resources are affected and your consumption isn't stopped.

Box 2: one email notification will be sent each month.

Budget alerts for Resource Group RG1, which include VM1, but not VM2. VM1 consumes 20 Euro/day.

The 50%, 500 Euro limit, will be reached in 25 days, and an email will be sent.

The 70% and 100% alert conditions will not be reached within a month, and they don't trigger email actions anyway.

Credit alerts: Credit alerts are generated automatically at 90% and at 100% of your Azure credit balance. Whenever an alert is generated, it's reflected in cost alerts and in the email sent to the account owners. 90% and 100% will not be reached though.

Reference: <https://docs.microsoft.com/en-us/azure/cost-management-billing/costs/cost-mgt-alerts-monitor-usagespending> <https://docs.microsoft.com/en-gb/azure/cost-management-billing/costs/tutorial-acm-createbudgets>

Question #34 Topic 4

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have an Azure subscription named Subscription1. Subscription1 contains a resource group named RG1. RG1 contains resources that were deployed by using templates.

You need to view the date and time when the resources were created in RG1.

Solution: From the Subscriptions blade, you select the subscription, and then click Programmatic deployment.

Does this meet the goal?

- A. Yes
- B. No

**Correct Answer: B**

From the RG1 blade, click Deployments. You see a history of deployment for the resource group.

Reference:

<https://docs.microsoft.com/en-us/azure/azure-resource-manager/templates/template-tutorial-createfirst-template?tabs=azure-powershell>

**Question #35Topic 4**

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have an Azure subscription that contains the resources shown in the following table.

Name	Type	Region
RG1	Resource group	West US
RG2	Resource group	East Asia
storage1	Storage account	West US
storage2	Storage account	East Asia
VM1	Virtual machine	West US
VNET1	Virtual network	West US
VNET2	Virtual network	East Asia

VM1 connects to VNET1.

You need to connect VM1 to VNET2.

Solution: You create a new network interface, and then you add the network interface to VM1. Does this meet the goal?

- A. Yes
- B. No

**Correct Answer: B**

You should delete VM1. You recreate VM1, and then you add the network interface for VM1.

Note: When you create an Azure virtual machine (VM), you must create a virtual network (VNet) or use an existing VNet. You can change the subnet a VM is connected to after it's created, but you cannot change the VNet.

Reference:

<https://docs.microsoft.com/en-us/azure/virtual-machines/windows/network-overview>

**Question #36Topic 4**

You have an Azure Active Directory (Azure AD) tenant named adatum.com that contains the users shown in the following table.

Name	Role
User1	None
User2	Global administrator
User3	Cloud device administrator
User4	Intune administrator

Adatum.com has the following configurations:

- Users may join devices to Azure AD is set to User1.
- Additional local administrators on Azure AD joined devices is set to None.

You deploy Windows 10 to a computer named Computer1. User1 joins Computer1 to adatum.com.

You need to identify the local Administrator group membership on Computer1. Which users are members of the local Administrators group?

- A. User1 only
- B. User2 only
- C. User1 and User2 only
- D. User1, User2, and User3 only
- E. User1, User2, User3, and User4

»

**Correct Answer: C**

Users may join devices to Azure AD - This setting enables you to select the users who can register their devices as Azure AD joined devices. The default is All.

Additional local administrators on Azure AD joined devices - You can select the users that are granted local administrator rights on a device. Users added here are added to the Device Administrators role in Azure AD. Global administrators, here User2, in Azure AD and device owners are granted local administrator rights by default.

Reference:

<https://docs.microsoft.com/en-us/azure/active-directory/devices/device-management-azure-portal>

**Question #37Topic 4**

HOTSPOT -

You have Azure subscriptions named Subscription1 and Subscription2. Subscription1 has following resource groups:

Name	Region	Lock type
RG1	West Europe	None
RG2	West Europe	Read Only

RG1 includes a web app named App1 in the West Europe location. Subscription2 contains the following resource groups:

Name	Region	Lock type
RG3	East Europe	Delete
RG4	Central US	none

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point. Hot Area:

## Answer Area

Statements	Yes	No
App1 can be moved to RG2	<input type="radio"/>	<input type="radio"/>
App1 can be moved to RG3	<input type="radio"/>	<input type="radio"/>
App1 can be moved to RG4	<input type="radio"/>	<input type="radio"/>

Correct

Answer:

## Answer Area

Statements	Yes	No
App1 can be moved to RG2	<input type="radio"/>	<input checked="" type="radio"/>
App1 can be moved to RG3	<input checked="" type="radio"/>	<input type="radio"/>
App1 can be moved to RG4	<input checked="" type="radio"/>	<input type="radio"/>

Box 1: No -

RG2 is read only. ReadOnly means authorized users can read a resource, but they cannot delete or update the resource.

Box 2: Yes -

Box 3: Yes - Note:

App Service resources are region-specific and cannot be moved directly across regions. You can move the App Service resource by creating a copy of your existing App Service resource in the target region, then move your content over to the new app. You can then delete the source app and App Service plan. To make copying your app easier, you can clone an individual App Service app into an App Service plan in another region.

Reference: <https://docs.microsoft.com/en-us/azure/app-service/manage-move-across-regions>  
<https://docs.microsoft.com/en-us/azure/azure-resource-manager/management/move-limitations/appservice-move-limitations>

Question #38Topic 4

HOTSPOT -

You have an Azure subscription named Subscription1 that contains the following resource group: ☈

Name: RG1

☞ Region: West US ☈

Tag: `tag1`: `value1`

You assign an Azure policy named Policy1 to Subscription1 by using the following configurations:

☞ Exclusions: None

☞ Policy definition: Append a tag and its value to resources

☞ Assignment name: Policy1 ☈ Parameters:

☞ Tag name: tag2

Tag value: value2 -



After Policy1 is assigned, you create a storage account that has the following configuration: ☈

Name: storage1 ↗

- Location: West US
- Resource group: RG1
- Tags: `tag3`: `value3`

You need to identify which tags are assigned to each resource.

What should you identify? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

## Answer Area

Tags assigned to RG1:

"tag1": "value1" only
"tag2": "value2" only
"tag1": "value1" and "tag2": "value2"

Tags assigned to storage1:

"tag3": "value3" only
"tag1": "value1" and "tag3": "value3" only
"tag2": "value2" and "tag3": "value3" only
"tag1": "value1", "tag2": "value2", and "tag3": "value3"

Correct

Answer:

## Answer Area

Tags assigned to RG1:

"tag1": "value1" only
"tag2": "value2" only
"tag1": "value1" and "tag2": "value2"

Tags assigned to storage1:

"tag3": "value3" only
"tag1": "value1" and "tag3": "value3" only
"tag2": "value2" and "tag3": "value3" only
"tag1": "value1", "tag2": "value2", and "tag3": "value3"

Box 1: "tag1": "value1" only -

Box 2: "tag2": "value2" and "tag3": "value3" only

Tags applied to the resource group are not inherited by the resources in that resource group.

Reference: <https://docs.microsoft.com/en-us/azure/azure-resource-manager/resource-group-using-tags> Question #39 Topic 4

HOTSPOT -

You have an Azure subscription named Subscription1.

In Subscription1, you create an alert rule named Alert1.

The Alert1 action group is configured as shown in the following exhibit.

```
ResourceGroupName : default-activitylogalerts
GroupShortName   : AG1
Enabled          : True
EmailReceivers   : {Action1_ "EmailAction"}
SmsReceivers     : {Action1_ "SMSAction"}
WebhookReceivers : {}
Id              : /subscriptions/a4fde29b-d56a-4f6c-8298-
6c53cd0b720c/resourceGroups/
default-activitylogalerts/providers/microsoft.insights/actionGroups/ActionGroup1
Name            : ActionGroup1
Type            : Microsoft.Insights/ActionGroups
Location        : Global
Tags            : {}
```

Alert1 alert criteria triggered every minute.

Use the drop-down menus to select the answer choice that completes each statement based on the information presented in the graphic.

NOTE: Each correct selection is worth one point.

Hot Area:

### Answer Area

The number of email messages that Alert1 will send in an hour is

0
4
6
12
60

The number of SMS messages that Alert2 will send in an hour is

0
4
6
12
60

Correct

Answer:

## Answer Area

The number of email messages that Alert1 will send in an hour is

0
4
6
12
60

The number of SMS messages that Alert2 will send in an hour is

0
4
6
12
60

Box 1: 60 -

One alert per minute will trigger one email per minute.

Box 2: 12 -

No more than 1 SMS every 5 minutes can be sent, which equals 12 per hour.

Note: Rate limiting is a suspension of notifications that occurs when too many are sent to a particular phone number, email address or device. Rate limiting ensures that alerts are manageable and actionable. The rate limit thresholds are:

- SMS: No more than 1 SMS every 5 minutes.
- Voice: No more than 1 Voice call every 5 minutes.
- Email: No more than 100 emails in an hour.
- Other actions are not rate limited.

Reference: <https://docs.microsoft.com/en-us/azure/azure-monitor/platform/alerts-rate-limiting>

Question #40Topic 4

You have an Azure subscription named Subscription1 that contains the resources shown in the following table.

Name	Type	Region	Resource group
RG1	Resource group	West Europe	<i>Not applicable</i>
RG2	Resource group	North Europe	<i>Not applicable</i>
Vault1	Recovery Services vault	West Europe	RG1

You create virtual machines in Subscription1 as shown in the following table.

Name	Resource group	Region	Operating system
VM1	RG1	West Europe	Windows Server 2016
VM2	RG1	North Europe	Windows Server 2016
VM3	RG2	West Europe	Windows Server 2016
VMA	RG1	West Europe	Ubuntu Server 18.04
VMB	RG1	North Europe	Ubuntu Server 18.04
VMC	RG2	West Europe	Ubuntu Server 18.04

You plan to use Vault1 for the backup of as many virtual machines as possible.

Which virtual machines can be backed up to Vault1?

- A. VM1 only

- B. VM3 and VMC only
- C. VM1, VM2, VM3, VMA, VMB, and VMC
- D. VM1, VM3, VMA, and VMC only
- E. VM1 and VM3 only

**Correct Answer: D**

To create a vault to protect virtual machines, the vault must be in the same region as the virtual machines. If you have virtual machines in several regions, create a Recovery Services vault in each region.

Reference:

<https://docs.microsoft.com/bs-cyrl-ba/azure/backup/backup-create-rs-vault>

**Question #41 Topic 4**

You have an Azure Kubernetes Service (AKS) cluster named AKS1.

You need to configure cluster autoscaler for AKS1.

Which two tools should you use? Each correct answer presents a complete solution. NOTE:

Each correct selection is worth one point.

- A. the kubectl command
- B. the az aks command
- C. the Set-AzVm cmdlet • D. the Azure portal
- E. the Set-AzAks cmdlet

**Correct Answer: BD**

A: The following example uses the kubectl autoscale command to autoscale the number of pods in the azure-vote-front deployment. If average CPU utilization across all pods exceeds 50% of their requested usage, the autoscaler increases the pods up to a maximum of 10 instances. A minimum of 3 instances is then defined for the deployment: kubectl autoscale deployment azure-vote-front --cpu-percent=50 -min=3 --max=10

B: Use the az aks update command to enable and configure the cluster autoscaler on the node pool for the existing cluster.

Reference: <https://docs.microsoft.com/en-us/azure/aks/tutorial-kubernetes-scale>

<https://docs.microsoft.com/enus/azure/aks/cluster-autoscaler>

**Question #42 Topic 4**

You create the following resources in an Azure subscription:

- An Azure Container Registry instance named Registry1
- An Azure Kubernetes Service (AKS) cluster named Cluster1

You create a container image named App1 on your administrative workstation.

You need to deploy App1 to Cluster1. What should you do first?

- A. Run the docker push command.
- B. Create an App Service plan.
- C. Run the az acr build command.
- D. Run the az aks create command.

**Correct Answer: C**

You should sign in and push a container image to Container Registry.

```
Run the az acr build command to build and push the container image. az acr build \
--image contoso-website \
--registry $ACR_NAME \
--file Dockerfile .
```

Reference:

<https://docs.microsoft.com/en-us/learn/modules/aks-deploy-container-app/5-exercise-deploy-app>

**Question #43 Topic 4**

You have an Azure subscription that contains the resources shown in the following table.

Name	Type	Resource group	Location
RG1	Resource group	<i>Not applicable</i>	Central US
RG2	Resource group	<i>Not applicable</i>	West US
VMSS1	Virtual machine scale set	RG2	West US
Proximity1	Proximity placement group	RG1	Central US
Proximity2	Proximity placement group	RG2	West US
Proximity3	Proximity placement group	RG1	Central US

You need to configure a proximity placement group for VMSS1. Which proximity placement groups should you use?

- A. Proximity2 only
- B. Proximity1, Proximity2, and Proximity3
- C. Proximity1 only
- D. Proximity1 and Proximity3 only

**Correct Answer: A**

Resource Group location of VMSS1 is the RG2 location, which is West US.

Only Proximity2, which also in RG2, is location in West US Reference:

<https://azure.microsoft.com/en-us/blog/introducing-proximity-placement-groups/>

**Question #44 Topic 4**

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have an Azure subscription named Subscription1. Subscription1 contains a resource group named RG1. RG1 contains resources that were deployed by using templates.

You need to view the date and time when the resources were created in RG1.

Solution: From the Subscriptions blade, you select the subscription, and then click Resource providers.

Does this meet the goal?

- A. Yes
- B. No

**Correct Answer: B**

**Question #45Topic 4**

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have an Azure subscription named Subscription1. Subscription1 contains a resource group named RG1. RG1 contains resources that were deployed by using templates.

You need to view the date and time when the resources were created in RG1.

Solution: From the RG1 blade, you click Automation script. Does this meet the goal?

- A. Yes
- B. No

**Correct Answer: B**

From the RG1 blade, click Deployments. You see a history of deployment for the resource group.

Reference: <https://docs.microsoft.com/en-us/azure/azure-resource-manager/templates/template-tutorial-createfirst-template?tabs=azure-powershell>

**Question #46Topic 4**

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have an Azure subscription named Subscription1. Subscription1 contains a resource group named RG1. RG1 contains resources that were deployed by using templates.

You need to view the date and time when the resources were created in RG1.

Solution: From the RG1 blade, you click Deployments. Does this meet the goal?

- A. Yes
- B. No

**Correct Answer: A**

From the RG1 blade, click Deployments. You see a history of deployment for the resource group.

Reference: <https://docs.microsoft.com/en-us/azure/azure-resource-manager/templates/template-tutorial-createfirst-template?tabs=azure-powershell>

**Question #47Topic 4**

You have an Azure subscription named Subscription1.

You deploy a Linux virtual machine named VM1 to Subscription1.

You need to monitor the metrics and the logs of VM1. What should you use?

- A. Azure HDInsight
- B. Linux Diagnostic Extension (LAD) 3.0
- C. the AzurePerformanceDiagnostics extension
- D. Azure Analysis Services

**Correct Answer: B**

The Linux Diagnostic Extension should be used which downloads the Diagnostic Extension (LAD) agent on Linux server.

Reference:

<https://docs.microsoft.com/en-us/azure/virtual-machines/extensions/diagnostics-linux>

Question #48 Topic 4 HOTSPOT

You have an Azure subscription named Subscription1. Subscription1 contains a virtual machine named VM1.

You install and configure a web server and a DNS server on VM1.

VM1 has the effective network security rules shown in the following exhibit:

Network Interface: <a href="#">vm1441</a>		Effective security rules	Topology				
		Virtual network/subnet: <a href="#">VNET1/default</a>	NIC Public IP: <a href="#">52.160.123.200</a>	NIC Private IP: <a href="#">10.0.6.4</a>	Accelerated networking: <a href="#">Disabled</a>		
		Inbound port rules	Outbound port rules	Application security groups	Load balancing		
<a href="#"> Network security group <a href="#">VM1-nsg</a> (attached to network interface: <a href="#">vm1441</a>)</a>						<a href="#">Add inbound port rule</a>	
Priority	Name	Port	Protocol	Source	Destination	Action	...
100	Rule2	50-60	Any	Any	Any	<a href="#">Deny</a>	...
300	<a href="#"> RDP</a>	3389	TCP	Any	Any	<a href="#">Allow</a>	...
400	Rule1	50-500	Any	Any	Any	<a href="#">Allow</a>	...
65000	AllowVnetInBound	Any	Any	VirtualNetwork	VirtualNetwork	<a href="#">Allow</a>	...
65001	AllowAzureLoadBalancerInBound	Any	Any	AzureLoadBalancer	Any	<a href="#">Allow</a>	...
65500	DenyAllInBound	Any	Any	Any	Any	<a href="#">Deny</a>	...

Use the drop-down menus to select the answer choice that completes each statement based on the information presented in the graphic.

NOTE: Each correct selection is worth one point.

Hot Area:

## Answer Area

Internet users [answer choice].

can connect to only the DNS server on VM1
can connect to only the web server on VM1
can connect to the web server and the DNS server on VM1
cannot connect to the web server and the DNS server on VM1

If you delete Rule2, Internet users [answer choice].

can connect to only the DNS server on VM1
can connect to only the web server on VM1
can connect to the web server and the DNS server on VM1
cannot connect to the web server and the DNS server on VM1

Correct

Answer:

## Answer Area

Internet users [answer choice].

can connect to only the DNS server on VM1
can connect to only the web server on VM1
can connect to the web server and the DNS server on VM1
cannot connect to the web server and the DNS server on VM1

If you delete Rule2, Internet users [answer choice].

can connect to only the DNS server on VM1
can connect to only the web server on VM1
can connect to the web server and the DNS server on VM1
cannot connect to the web server and the DNS server on VM1

Box 1:

Rule2 blocks ports 50-60, which includes port 53, the DNS port. Internet users can reach to the Web server, since it uses port 80.

Box 2:

If Rule2 is removed internet users can reach the DNS server as well.

Note: Rules are processed in priority order, with lower numbers processed before higher numbers, because lower numbers have higher priority. Once traffic matches a rule, processing stops. As a result, any rules that exist with lower priorities (higher numbers) that have the same attributes as rules with higher priorities are not processed.

Reference: <https://docs.microsoft.com/en-us/azure/virtual-network/security-overview>

Question #49 Topic 4

You plan to deploy three Azure virtual machines named VM1, VM2, and VM3. The virtual machines will host a web app named App1.

You need to ensure that at least two virtual machines are available if a single Azure datacenter becomes unavailable.

What should you deploy?

- A. all three virtual machines in a single Availability Zone
- B. all virtual machines in a single Availability Set
- C. each virtual machine in a separate Availability Zone
- D. each virtual machine in a separate Availability Set

**Correct Answer: C**

Use availability zones to protect from datacenter level failures.

Reference: <https://docs.microsoft.com/en-us/azure/virtual-machines/windows/manage-availability>  
<https://docs.microsoft.com/en-us/azure/virtual-machines/windows/tutorial-availability-sets>

**Question #50 Topic 4**

You have an Azure virtual machine named VM1 that runs Windows Server 2019.

You save VM1 as a template named Template1 to the Azure Resource Manager library.

You plan to deploy a virtual machine named VM2 from Template1. What can you configure during the deployment of VM2?

- A. operating system
- B. administrator username
- C. virtual machine size
- D. resource group

**Correct Answer: B**

When deploying a virtual machine from a template, you must specify:

- the Resource Group name and location for the VM
- the administrator username and password
- an unique DNS name for the public IP Reference:  
<https://docs.microsoft.com/en-us/azure/virtual-machines/windows/ps-template>

**Question #51 Topic 4**

You have an Azure subscription that contains an Azure virtual machine named VM1. VM1 runs a financial reporting app named App1 that does not support multiple active instances.

At the end of each month, CPU usage for VM1 peaks when App1 runs.

You need to create a scheduled runbook to increase the processor performance of VM1 at the end of each month.

What task should you include in the runbook?

- A. Add the Azure Performance Diagnostics agent to VM1.
- B. Modify the VM size property of VM1.
- C. Add VM1 to a scale set.
- D. Increase the vCPU quota for the subscription.
- E. Add a Desired State Configuration (DSC) extension to VM1.

**Correct Answer: E**

Reference:

<https://docs.microsoft.com/en-us/azure/automation/automation-quickstart-dsc-configuration>

**Question #52 Topic 4**

You plan to deploy several Azure virtual machines that will run Windows Server 2019 in a virtual machine scale set by using an Azure Resource Manager template.

You need to ensure that NGINX is available on all the virtual machines after they are deployed. What should you use?

- A. Deployment Center in Azure App Service
- B. A Desired State Configuration (DSC) extension
- C. the New-AzConfigurationAssignment cmdlet
- D. a Microsoft Intune device configuration profile

**Correct Answer: B**

Azure virtual machine extensions are small packages that run post-deployment configuration and automation on Azure virtual machines.

In the following example, the Azure CLI is used to deploy a custom script extension to an existing virtual machine, which installs a Nginx webserver. az vm extension set \

```
--resource-group myResourceGroup \
--vm-name myVM --name customScript \
--publisher Microsoft.Azure.Extensions \
--settings '{"commandToExecute": "apt-get install -y nginx"}' Note:
```

There are several versions of this question in the exam. The question has two correct answers:

1. a Desired State Configuration (DSC) extension
2. Azure Custom Script Extension

The question can have other incorrect answer options, including the following:

☞ the Publish-AzVMDscConfiguration cmdlet

☞ Azure Application Insights Reference:

<https://docs.microsoft.com/en-us/azure/architecture/framework/devops/automation-configuration>

**Question #53 Topic 4 HOTSPOT - ↗**

You deploy an Azure Kubernetes Service (AKS) cluster that has the network profile shown in the following exhibit.

### Network profile

Type (plugin)	Basic (Kubnet)
Pod CIDR	10.244.0.0/16
Service CIDR	10.0.0.0/16
DNS service IP	10.0.0.10
Docker bridge CIDR	172.17.0.1/16

### Network options

#### HTTP application routing

Enabled

Disabled

Use the drop-down menus to select the answer choice that completes each statement based on the information presented in the graphic.

NOTE: Each correct selection is worth one point.

Hot Area:

### Answer Area

Containers will be assigned an IP address in the [answer choice] subnet.

▼
10.244.0.0/16
10.0.0.0/16
172.17.0.1/16

Services in the AKS cluster will be assigned an IP address in the [answer choice] subnet.

▼
10.244.0.0/16
10.0.0.0/16
172.17.0.1/16

Correct

Answer:

## Answer Area

Containers will be assigned an IP address in the [answer choice] subnet.

10.244.0.0/16
10.0.0.0/16
172.17.0.1/16

Services in the AKS cluster will be assigned an IP address in the [answer choice] subnet.

10.244.0.0/16
10.0.0.0/16
172.17.0.1/16

Box 1: 10.244.0.0/16 - The Pod CIDR.

Note: The --pod-cidr should be a large address space that isn't in use elsewhere in your network environment. This range includes any on-premises network ranges if you connect, or plan to connect, your Azure virtual networks using Express Route or a Site-to-Site VPN connection.

This address range must be large enough to accommodate the number of nodes that you expect to scale up to. You can't change this address range once the cluster is deployed if you need more addresses for additional nodes.

Box 2: 10.0.0.0/16 -

The --service-cidr is used to assign internal services in the AKS cluster an IP address.

Reference: <https://docs.microsoft.com/en-us/azure/aks/configure-kubenet>

Question #54 Topic 4

HOTSPOT -

You have the App Service plan shown in the following exhibit.

Default Auto created scale condition

Delete warning ⓘ The very last or default recurrence rule cannot be deleted. Instead, you can disable autoscale to turn off autoscale

Scale mode  Scale based on a metric  Scale to a specific instance count

Rules

Scale out

When	homepage	(Maximum) CpuPercentage > 85	Increase count by 1
------	----------	------------------------------	---------------------

Scale in

When	homepage	(Average) CpuPercentage < 30	Decrease count by 1
------	----------	------------------------------	---------------------

+ Add a rule

Instance limits

Minimum <input type="radio"/>	1	Maximum <input type="radio"/>	5	Default <input type="radio"/>	1
-------------------------------	---	-------------------------------	---	-------------------------------	---

Schedule This scale condition is executed when none of the other scale condition(s) match

The scale-in settings for the App Service plan are configured as shown in the following exhibit.

**Operator \***      **Metric threshold to trigger scale action \*** ⓘ

Less than	30
	%

**Duration (in minutes) \*** ⓘ

5	✓
---	---

**Time grain (in mins) \*** ⓘ

1
---

**Time grain statistic \*** ⓘ

Average
---------

**Action**

**Operation \***

Decrease count by
-------------------

**Instance count \***

1	✓
---	---

**Cool down (minutes) \*** ⓘ

5
---

The scale out rule is configured with the same duration and cool down tile as the scale in rule. Use the drop-down menus to select the answer choice that completes each statement based on the information presented in the graphic.

NOTE: Each correct selection is worth one point.

Hot Area:

If after deployment CPU usage is 70 percent for one hour and then reaches 90 percent for five minutes, at that time the total number of instances will be [answer choice].

1
2
3
4
5

If after deployment the CPU maintains constant usage of 90 percent for one hour, and then the average CPU usage is below 25 percent for nine minutes, at that point the number of instances will be [answer choice].

1
2
3
4
5

**Correct**

**Answer:**

If after deployment CPU usage is 70 percent for one hour and then reaches 90 percent for five minutes, at that time the total number of instances will be [answer choice].

1
2
3
4
5

If after deployment the CPU maintains constant usage of 90 percent for one hour, and then the average CPU usage is below 25 percent for nine minutes, at that point the number of instances will be [answer choice].

1
2
3
4
5

Box 1: 5 -

The maximum 5 will kept as the CPU Usage  $\geq 30$ .

Box 2: 3 -

As soon as the average CPU usage drops below 30%, the count will decrease by 1. After the 5 minute cool-down it will decrease by another 1, reaching 3.

Reference: <https://docs.microsoft.com/en-us/azure/azure-monitor/learn/tutorial-autoscale-performance-schedule> Question #55Topic 4

You have an Azure virtual machine named VM1 that runs Windows Server 2019. The VM was deployed using default drive settings.

You sign in to VM1 as a user named User1 and perform the following actions:

- Create files on drive C.
- Create files on drive D.
- Modify the screen saver timeout.
- Change the desktop background.

You plan to redeploy VM1.

Which changes will be lost after you redeploy VM1?

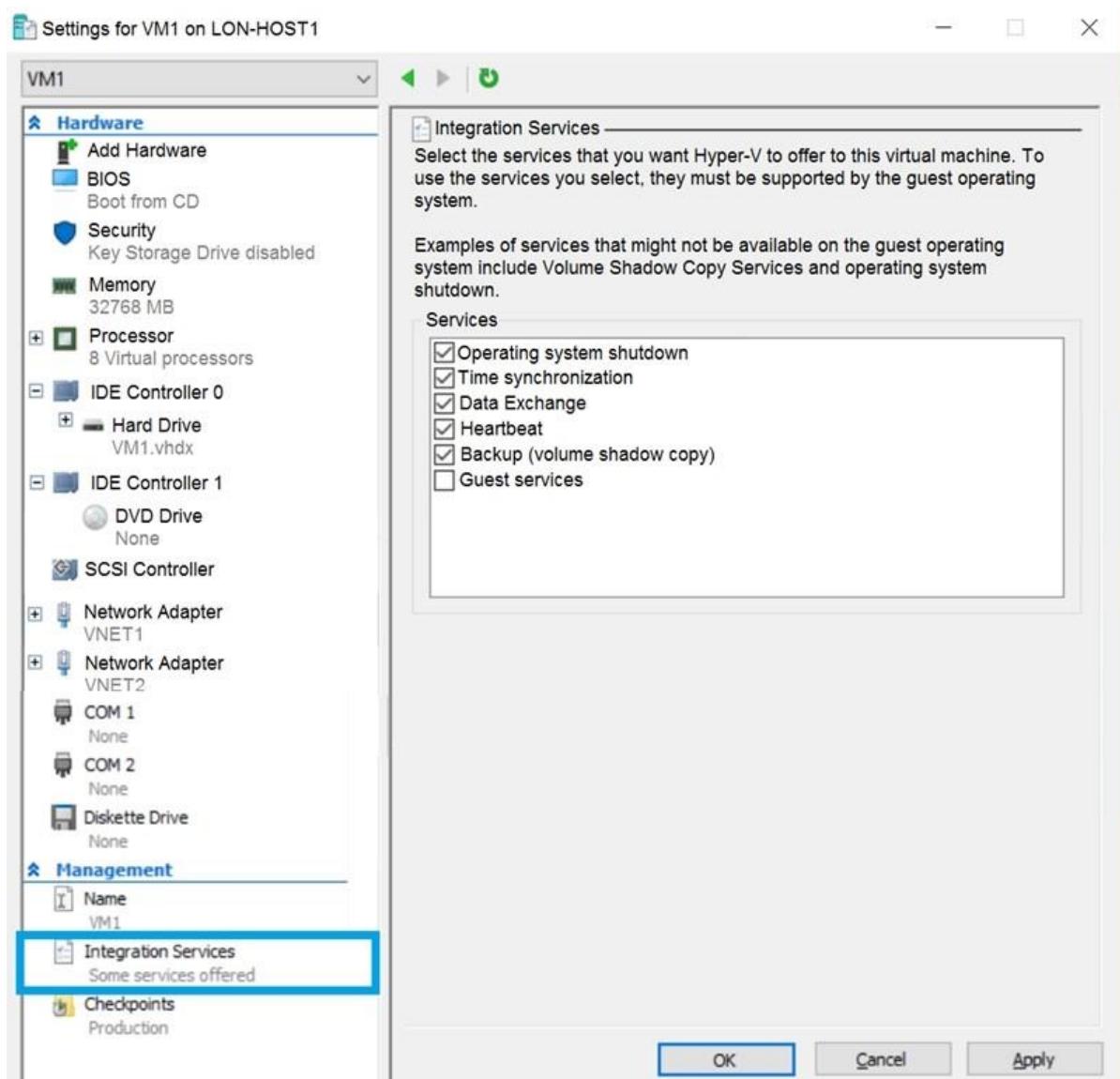
- A. the modified screen saver timeout
- B. the new desktop background
- C. the new files on drive D
- D. the new files on drive C

**Correct Answer: C**

Question #56Topic 4

You have an Azure subscription.

You have an on-premises virtual machine named VM1. The settings for VM1 are shown in the exhibit. (Click the Exhibit tab.)



You need to ensure that you can use the disks attached to VM1 as a template for Azure virtual machines. What should you modify on VM1?

- A. the memory
- B. the network adapters
- C. the hard drive
- D. the processor
- E. Integration Services

**Correct Answer: C**

From the exhibit we see that the disk is in the VHDX format.

Before you upload a Windows virtual machine (VM) from on-premises to Microsoft Azure, you must prepare the virtual hard disk (VHD or VHDX). Azure supports only generation 1 VMs that are in the VHD file format and have a fixed sized disk. The maximum size allowed for the VHD is 1,023 GB. You can convert a generation 1 VM from the VHDX file system to VHD and from a dynamically expanding disk to fixed-sized.

Reference:

<https://docs.microsoft.com/en-us/azure/virtual-machines/windows/prepare-for-upload-vhd-image>

Question #57 Topic 4

HOTSPOT -

You have an Azure subscription that contains a virtual machine scale set. The scale set contains four instances that have the following configurations:

Operating system: Windows Server 2016

Size: Standard\_D1\_v2

You run the get-azvmss cmdlet as shown in the following exhibit:

```
PS Azure:> (Get-AzVmss -Name WebProd -ResourceGroupName RG1).VirtualMachineProfile.OsProfile.WindowsConfiguration  
  
ProvisionVMAgent : True  
EnableAutomaticUpdates : False  
TimeZone :  
AdditionalUnattendContent :  
WinRM :  
  
Azure:/  
PS Azure:> Get-AzVmss -Name WebProd -ResourceGroupName RG1 | Select -ExpandProperty UpgradePolicy  
  
Mode RollingUpgradePolicy AutomaticOSUpgradePolicy  
-----  
Automatic Microsoft.Azure.Management.Compute.Models.AutomaticOSUpgradePolicy  
  
Azure:/  
PS Azure:> []
```

Use the drop-down menus to select the answer choice that completes each statement based on the information presented in the graphic.

NOTE: Each correct selection is worth one point.

Hot Area:

### Answer Area

When an administrator changes the virtual machine size, the size will be changed on up to [answer choice] virtual machines simultaneously.

0
1
2
4

When a new build of the Windows Server 2016 image is released, the new build will be deployed to up to [answer choice] virtual machines simultaneously.

0
1
2
4

Correct

Answer:

## Answer Area

When an administrator changes the virtual machine size, the size will be changed on up to [answer choice] virtual machines simultaneously.

▼
0
1
2
4

When a new build of the Windows Server 2016 image is released, the new build will be deployed to up to [answer choice] virtual machines simultaneously.

▼
0
1
2
4

The Get-AzVmssVM cmdlet gets the model view and instance view of a Virtual Machine Scale Set (VMSS) virtual machine.

Box 1: 0 -

The enableAutomaticUpdates parameter is set to false. To update existing VMs, you must do a manual upgrade of each existing VM.

Box 2: 4 -

Enabling automatic OS image upgrades on your scale set helps ease update management by safely and automatically upgrading the OS disk for all instances in the scale set.

Reference: <https://docs.microsoft.com/en-us/azure/virtual-machine-scale-sets/virtual-machine-scale-sets-upgradescale-set> <https://docs.microsoft.com/en-us/azure/virtual-machine-scale-sets/virtual-machine-scale-setsautomatic-upgrade> Question #58Topic 4

You have an Azure subscription named Subscription1 that is used by several departments at your company. Subscription1 contains the resources in the following table:

Name	Type
storage1	Storage account
RG1	Resource group
container1	Blob container
share1	File share

Another administrator deploys a virtual machine named VM1 and an Azure Storage account named storage2 by using a single Azure Resource Manager template.

You need to view the template used for the deployment.

From which blade can you view the template that was used for the deployment?

- A. VM1
- B. RG1

- C. storage2
- D. container1

**Correct Answer: B**

View template from deployment history

1. Go to the resource group for your new resource group. Notice that the portal shows the result of the last deployment. Select this link.

The screenshot shows the 'Overview' tab selected in the left sidebar of the Azure Resource Group portal. In the main content area, there is a summary section with fields: 'Subscription name (change)', 'Microsoft Azure Consumption', and 'Subscription ID'. To the right, a 'Deployments' box is highlighted with a red border, showing '1 Succeeded'. At the top of the page are standard navigation buttons: 'Add', 'Columns', 'Delete', 'Refresh', and 'Move'.

2. You see a history of deployments for the group. In your case, the portal probably lists only one deployment. Select this deployment.

The screenshot shows the 'Deployment History' page. At the top, there are buttons for 'Delete', 'Cancel', 'Redeploy', and 'View template'. Below is a search bar with placeholder text 'Search for deployments by name...'. The main table has columns 'DEPLOYMENT NAME' and 'STATUS'. A single row is visible, with the deployment name 'Microsoft.WebSiteSQLDatabased1...' highlighted with a red border and the status 'Succeeded' indicated by a green checkmark icon.

DEPLOYMENT NAME	STATUS
Microsoft.WebSiteSQLDatabased1...	Succeeded

3. The portal displays a summary of the deployment. The summary includes the status of the deployment and its operations and the values that you provided for parameters. To see the template that you used for the deployment, select View template.

Microsoft Azure < exportsite - Deployments > Microsoft.WebSiteSQLDatab...

Microsoft.WebSiteSQLDatabased13386b0-9908  
Deployment

+ Delete Cancel Refresh Redeploy View template

Summary  
DEPLOYMENT DATE 7/5/2017 4:01:15 PM  
STATUS Succeeded  
DURATION 1 minute 30 seconds  
RESOURCE GROUP exportsite  
RELATED Events

Reference:

<https://docs.microsoft.com/en-us/azure/azure-resource-manager/resource-manager-export-template>

Question #59 Topic 4

You have an Azure web app named App1. App1 has the deployment slots shown in the following table:

Name	Function
webapp1-prod	Production
webapp1-test	Staging

In webapp1-test, you test several changes to App1.

You back up App1.

You swap webapp1-test for webapp1-prod and discover that App1 is experiencing performance issues.

You need to revert to the previous version of App1 as quickly as possible. What should you do?

- A. Redeploy App1
- B. Swap the slots
- C. Clone App1
- D. Restore the backup of App1

**Correct Answer: B**

When you swap deployment slots, Azure swaps the Virtual IP addresses of the source and destination slots, thereby swapping the URLs of the slots. We can easily revert the deployment by swapping back.

Reference:

<https://docs.microsoft.com/en-us/azure/app-service/deploy-staging-slots>

Question #60Topic 4 HOTSPOT

- You have an Azure subscription named Subscription1. Subscription1 contains two Azure virtual machines VM1 and VM2. VM1 and VM2 run Windows Server 2016.

VM1 is backed up daily by Azure Backup without using the Azure Backup agent.

VM1 is affected by ransomware that encrypts data.

You need to restore the latest backup of VM1.

To which location can you restore the backup? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

**Answer Area**

You can perform a file recovery of  
VM1 to:

VM1 only
VM1 or a new Azure virtual machine only
VM1 and VM2 only
A new Azure virtual machine only
Any Windows computer that has Internet connectivity

You can restore VM1 to:

VM1 only
VM1 or a new Azure virtual machine only
VM1 and VM2 only
Any Windows computer that has Internet connectivity

**Correct**

**Answer:**

## Answer Area

You can perform a file recovery of VM1 to:

VM1 only
VM1 or a new Azure virtual machine only
VM1 and VM2 only
A new Azure virtual machine only
Any Windows computer that has Internet connectivity

You can restore VM1 to:

VM1 only
VM1 or a new Azure virtual machine only
VM1 and VM2 only
Any Windows computer that has Internet connectivity

Note: The new VM must be in the same region.

Reference:

<https://docs.microsoft.com/en-us/azure/backup/backup-azure-arm-restore-vms>

Question #61 Topic 4

You plan to back up an Azure virtual machine named VM1.

You discover that the Backup Pre-Check status displays a status of Warning. What is a possible cause of the Warning status?

- A. VM1 is stopped.
- B. VM1 does not have the latest version of the Azure VM Agent (WaAppAgent.exe) installed.
- C. VM1 has an unmanaged disk.
- D. A Recovery Services vault is unavailable.

Correct Answer: B

The Warning state indicates one or more issues in VM's configuration that might lead to backup failures and provides recommended steps to ensure successful backups. Not having the latest VM Agent installed, for example, can cause backups to fail intermittently and falls in this class of issues.

Reference:

<https://azure.microsoft.com/en-us/blog/azure-vm-backup-pre-checks/>

Question #62 Topic 4

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have an Azure virtual machine named VM1. VM1 was deployed by using a custom Azure Resource Manager template named ARM1.json.

You receive a notification that VM1 will be affected by maintenance.

You need to move VM1 to a different host immediately.

Solution: From the Overview blade, you move the virtual machine to a different resource group. Does this meet the goal?

- A. Yes
- B. No

**Correct Answer: B**

You would need to redeploy the VM.

Reference:

<https://docs.microsoft.com/en-us/azure/virtual-machines/windows/redeploy-to-new-node>

Question #63 Topic 4

HOTSPOT -

You have an Azure subscription.

You plan to use Azure Resource Manager templates to deploy 50 Azure virtual machines that will be part of the same availability set.

You need to ensure that as many virtual machines as possible are available if the fabric fails or during servicing.

How should you configure the template? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

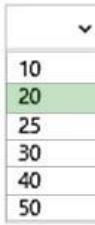
**Answer Area**

```
{
  "$schema": "https://schema.management.azure.com/schemas/2015-01-01/deploymentTemplate.json#",
  "contentVersion": "1.0.0.0",
  "parameters": {},
  "resources": [
    {
      "type": "Microsoft.Compute/availabilitySets",
      "name": "ha",
      "apiVersion": "2017-12-01",
      "location": "eastus",
      "properties": {
        "platformFaultDomainCount": ,
        "platformUpdateDomainCount": 
      }
    }
  ]
}
```

**Correct**

**Answer:**

## Answer Area

```
{  
    "$schema": "https://schema.management.azure.com/schemas/2015-01-01/deploymentTemplate.json#",  
    "contentVersion": "1.0.0.0",  
    "parameters": {},  
    "resources": [  
        {  
            "type": "Microsoft.Compute/availabilitySets",  
            "name": "ha",  
            "apiVersion": "2017-12-01",  
            "location": "eastus",  
            "properties": {  
                "platformFaultDomainCount":   
                "platformUpdateDomainCount": 
```

Box 1: 2 -

Use two fault domains.

2 or 3 is max, depending on which region you are in.

Box 2: 20 -

Use 20 for platformUpdateDomainCount

Increasing the update domain (platformUpdateDomainCount) helps with capacity and availability planning when the platform reboots nodes. A higher number for the pool (20 is max) means that fewer of their nodes in any given availability set would be rebooted at once.

Reference: <https://www.itprotoday.com/microsoft-azure/check-if-azure-region-supports-2-or-3-fault-domainsmanaged-disks> <https://github.com/Azure/acs-engine/issues/1030>

Question #64Topic 4

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have an Azure virtual machine named VM1 that runs Windows Server 2016.

You need to create an alert in Azure when more than two error events are logged to the System event log on VM1 within an hour.

Solution: You create an Azure Log Analytics workspace and configure the Agent configuration settings.

You install the Microsoft Monitoring Agent on VM1. You create an alert in Azure Monitor and specify the Log Analytics workspace as the source. Does this meet the goal?

- A. Yes
- B. No

Correct Answer: A

Alerts in Azure Monitor can identify important information in your Log Analytics repository. They are created by alert rules that automatically run log searches at regular intervals, and if results of the log search match particular criteria, then an alert record is created and it can be configured to perform an automated response.

The Log Analytics agent collects monitoring data from the guest operating system and workloads of virtual machines in Azure, other cloud providers, and on-premises. It collects data into a Log Analytics workspace. References: <https://docs.microsoft.com/en-us/azure/azure-monitor/learn/tutorial-response> <https://docs.microsoft.com/en-us/azure/azure-monitor/platform/agents-overview>

Question #65 *Topic 4*

HOTSPOT -

You have an Azure subscription.

You deploy a virtual machine scale set that is configured as shown in the following exhibit.

## Create a virtual machine scale set

Basics Disks Networking Scaling Management Health Advanced

An Azure virtual machine scale set can automatically increase or decrease the number of VM instances that run your application. This automated and elastic behavior reduces the management overhead to monitor and optimize the performance of your application. [Learn more about VMSS scaling](#)

### Instance

Initial instance count \*  ✓

### Scaling

Scaling policy  Manual  Custom

Minimum number of VMs \*  ✓

Maximum number of VMs \*  ✓

### Scale out

CPU threshold (%) \*  ✓

Duration in minutes \*  ✓

Number of VMs to increase by \*  ✓

### Scale in

CPU threshold (%) \*  ✓

Number of VMs to decrease by \*  ✓

### Diagnostic logs

Collect diagnostic logs from Autoscale   Disabled  Enabled

### Scale-In policy

Configure the order in which virtual machines are selected for deletion during a scale-in operation.  
[Learn more about scale-in policies.](#)

Scale-in policy  ▼

Use the drop-down menus to select the answer choice that answers each question based on the information presented in the graphic

NOTE: Each correct selection is worth one point.

Hot Area:

## Answer Area

At 9:00 AM, the scale set starts and CPU utilization is 90 percent for 15 minutes. How many virtual machine instances will be running at 9:15 AM?

▼	
2	
3	
4	
5	

At 10:00 AM, the scale set has five virtual machine instances running and CPU utilization falls to less than 15 percent for 60 minutes. How many virtual machine instances will be running at 11:00 AM?

▼	
1	
2	
3	
4	

Correct

Answer:

## Answer Area

At 9:00 AM, the scale set starts and CPU utilization is 90 percent for 15 minutes. How many virtual machine instances will be running at 9:15 AM?

▼	
2	
3	▼
4	
5	

At 10:00 AM, the scale set has five virtual machine instances running and CPU utilization falls to less than 15 percent for 60 minutes. How many virtual machine instances will be running at 11:00 AM?

▼	
1	▼
2	
3	
4	

Reference: <https://docs.microsoft.com/en-us/azure/virtual-machine-scale-sets/virtual-machine-scale-sets-autoscaleportal>

Question #66Topic 4

You have web apps in the West US, Central US and East US Azure regions. You have the App Service plans shown in the following table.

Name	Operating system	Location	SKU and size
ASP1	Windows	West US	Standard S1
ASP2	Linux	Central US	Premium V2 P1v2
ASP3	Linux	East US	Premium V2 P1v2
ASP4	Linux	East US	Premium V2 P1v2

You plan to create an additional App Service plan named ASP5 that will use the Linux operating system. You need to identify in which of the currently used locations you can deploy ASP5. What should you recommend?

- A. West US, Central US, or East US
- B. Central US only
- C. East US only
- D. West US only

**Correct Answer:** A

Reference:

<https://docs.microsoft.com/en-us/azure/app-service/app-service-plan-manage>

Question #67 *Topic 4*

You plan to deploy several Azure virtual machines that will run Windows Server 2019 in a virtual machine scale set by using an Azure Resource Manager template.

You need to ensure that NGINX is available on all the virtual machines after they are deployed. What should you use?

- A. the New-AzConfigurationAssignment cmdlet
- B. a Desired State Configuration (DSC) extension
- C. Azure Active Directory (Azure AD) Application Proxy
- D. Azure Application Insights

**Correct Answer:** B

Reference:

<https://docs.microsoft.com/en-us/azure/virtual-machines/extensions/dsc-overview>

Question #68 *Topic 4*

HOTSPOT -

You have an Azure subscription that contains the resources shown in the following table.

Name	Type
ManagementGroup1	Management group
RG1	Resource group
9c8bc1cd-7655-4c66-b3ea-a8ee101d8f75	Subscription ID
Tag1	Tag

In Azure Cloud Shell, you need to create a virtual machine by using an Azure Resource Manager (ARM) template.

How should you complete the command? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point. Hot Area:

```
$adminPassword = Read-Host -Prompt "Enter the administrator password" -AsSecureString
```

<input type="checkbox"/> New-AzVm <input type="checkbox"/> New-AzResource <input type="checkbox"/> New-AzTemplateSpec <input checked="" type="checkbox"/> New-AzResourceGroupDeployment	<input type="checkbox"/> -Tag Tag1 <input type="checkbox"/> -ResourceGroupName RG1 <input type="checkbox"/> -GroupName ManagementGroup1 <input type="checkbox"/> -Subscription 9c8bc1cd-7655-4c66-b3ea-a8ee101d8f75
--	--

```
- TemplateUri "https://raw.githubusercontent.com/Azure/azure-quickstart-templates/master/101-vm-simple-windows/azuredeploy.json" '  
- adminUsername LocalAdministrator -adminPassword $adminPassword -dnsLabelPrefix ContosoVM1
```

### Correct

#### Answer:

```
$adminPassword = Read-Host -Prompt "Enter the administrator password" -AsSecureString
```

<input checked="" type="checkbox"/> New-AzVm <input type="checkbox"/> New-AzResource <input type="checkbox"/> New-AzTemplateSpec <input checked="" type="checkbox"/> New-AzResourceGroupDeployment	<input type="checkbox"/> -Tag Tag1 <input checked="" type="checkbox"/> -ResourceGroupName RG1 <input checked="" type="checkbox"/> -GroupName ManagementGroup1 <input type="checkbox"/> -Subscription 9c8bc1cd-7655-4c66-b3ea-a8ee101d8f75
---	--

```
- TemplateUri "https://raw.githubusercontent.com/Azure/azure-quickstart-templates/master/101-vm-simple-windows/azuredeploy.json" '  
- adminUsername LocalAdministrator -adminPassword $adminPassword -dnsLabelPrefix ContosoVM1
```

#### Reference:

[https://docs.microsoft.com/en-](https://docs.microsoft.com/en-us/powershell/module/az.resources/newazresourcegroupdeployment?view=azps-6.6.0)

[us/powershell/module/az.resources/newazresourcegroupdeployment?view=azps-6.6.0](https://docs.microsoft.com/en-us/powershell/module/az.resources/newazresourcegroupdeployment?view=azps-6.6.0)

#### Question #69 Topic 4

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some questions sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You deploy an Azure Kubernetes Service (AKS) cluster named AKS1.

You need to deploy a YAML file to AKS1.

Solution: From Azure Cloud Shell, you run az aks. Does

this meet the goal?

- A. Yes
- B. No

#### Correct Answer: B

To deploy a YAML file, the command is:

kubectl apply -f <file\_name>.yaml

Reference:

<https://docs.microsoft.com/en-us/azure/aks/kubernetes-walkthrough>

**Question #70 Topic 4**

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have an Azure virtual machine named VM1 that runs Windows Server 2016.

You need to create an alert in Azure when more than two error events are logged to the System event log on VM1 within an hour.

Solution: You create an Azure Log Analytics workspace and configure the data settings. You add the Microsoft Monitoring Agent VM extension to VM1. You create an alert in Azure Monitor and specify the Log Analytics workspace as the source. Does this meet the goal?

- A. Yes
- B. No

**Correct Answer: B**

You must install the Microsoft Monitoring Agent on VM1, and not the Microsoft Monitoring Agent VM extension. Reference:

<https://docs.microsoft.com/en-us/azure/azure-monitor/platform/agents-overview>

**Question #71 Topic 4**

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have an Azure virtual machine named VM1 that runs Windows Server 2016.

You need to create an alert in Azure when more than two error events are logged to the System event log on VM1 within an hour.

Solution: You create an Azure Log Analytics workspace and configure the data settings. You install the Microsoft Monitoring Agent on VM1. You create an alert in Azure Monitor and specify the Log Analytics workspace as the source. Does this meet the goal?

- A. Yes
- B. No

**Correct Answer: A**

Alerts in Azure Monitor can identify important information in your Log Analytics repository. They are created by alert rules that automatically run log searches at regular intervals, and if results of the log search match particular criteria, then an alert record is created and it can be configured to perform an automated response.

The Log Analytics agent collects monitoring data from the guest operating system and workloads of virtual machines in Azure, other cloud providers, and on-premises. It collects data into a Log Analytics workspace.

Reference: <https://docs.microsoft.com/en-us/azure/azure-monitor/learn/tutorial-response>  
<https://docs.microsoft.com/en-us/azure/azure-monitor/platform/agents-overview>

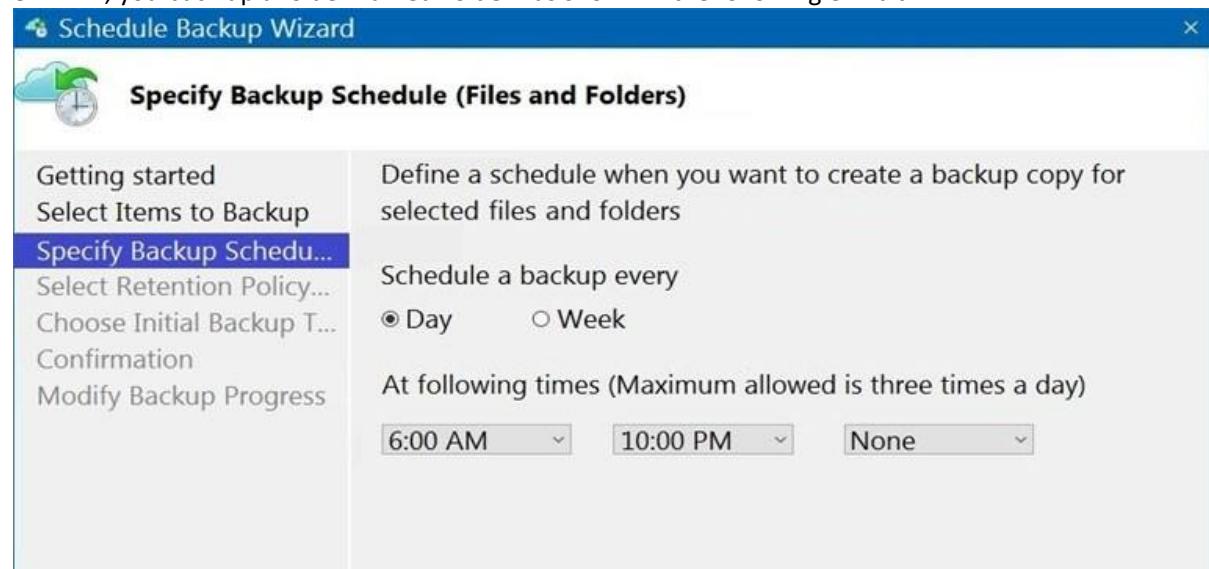
Question #72 Topic 4

You have an Azure subscription that contains the resources shown in the following table.

Name	Type	Resource group	Location
Vault1	Recovery services vault	RG1	East US
VM1	Virtual machine	RG1	East US
VM2	Virtual machine	RG1	West US

All virtual machines run Windows Server 2016.

On VM1, you back up a folder named Folder1 as shown in the following exhibit.



You plan to restore the backup to a different virtual machine.

You need to restore the backup to VM2. What should you do first?

- A. From VM1, install the Windows Server Backup feature.
- B. From VM2, install the Microsoft Azure Recovery Services Agent.
- C. From VM1, install the Microsoft Azure Recovery Services Agent.
- D. From VM2, install the Windows Server Backup feature.

**Correct Answer: B**

Reference:

<https://docs.microsoft.com/en-us/azure/backup/backup-azure-restore-windows-server>

Question #73 Topic 4

HOTSPOT -

You have an Azure subscription.

You need to use an Azure Resource Manager (ARM) template to create a virtual machine that will have multiple data disks.

How should you complete the template? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point. Hot Area:

**Answer Area**

```
{  
  "$schema": "https://schema.management.azure.com/schemas/2019-04-01/deploymentTemplate.json#",  
  "parameters": {  
    "numberOfDataDisks": {  
      "type": "int",  
      "metadata": {  
        "description": "The number of dataDisks to create."  
      }  
    },  
    ...  
  },  
  "resources": [  
    {  
      "type": "Microsoft.Compute/virtualMachines",  
      "apiVersion": "2017-03-30",  
      ...  
      "properties": {  
        "storageProfile": {  
          ...  


|                |   |
|----------------|---|
| "copy": [      | ▼ |
| "copyIndex": [ |   |
| "dependsOn": [ |   |

  
          { "name": "dataDisks",  
            "count": "[parameters('numberOfDataDisks')]",  
            "input": {  
              "diskSizeGB": 1023,  
              "lun": 

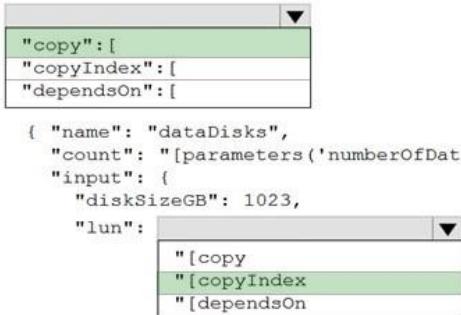
|             |   |
|-------------|---|
| "[copy      | ▼ |
| "[copyIndex |   |
| "[dependsOn |   |

  
              "createOption": "Empty"  
            }  
          }  
        }  
      }  
    }  
  ]  
}
```

**Correct**

**Answer:**

#### Answer Area

```
{  
    "$schema": "https://schema.management.azure.com/schemas/2019-04-01/deploymentTemplate.json#",  
    "parameters": {  
        "numberOfDataDisks": {  
            "type": "int",  
            "metadata": {  
                "description": "The number of dataDisks to create."  
            }  
        },  
        ...  
    },  
    "resources": [  
        {  
            "type": "Microsoft.Compute/virtualMachines",  
            "apiVersion": "2017-03-30",  
            ...  
            "properties": {  
                "storageProfile": {  
                    ...  
  
                    "copy": [  
                        "copyIndex": [  
                            "dependsOn": [  
                                { "name": "dataDisks",  
                                    "count": "[parameters('numberOfDataDisks')]",  
                                    "input": {  
                                        "diskSizeGB": 1023,  
                                        "lun": [  
                                            "[copy",  
                                            "[copyIndex",  
                                            "[dependsOn  
                                        ]]  
                                    }  
                                }  
                            ]  
                        ]  
                    ]  
                }  
            }  
        }  
    ]  
}
```

#### Question #74 Topic 4

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have an Azure subscription named Subscription1 that contains the resources shown in the following table.

Name	Type	Location	Resource group
RG1	Resource group	East US	<i>Not applicable</i>
RG2	Resource group	West Europe	<i>Not applicable</i>
RG3	Resource group	North Europe	<i>Not applicable</i>
VNET1	Virtual network	Central US	RG1
VM1	Virtual machine	West US	RG2

Subscription1 also includes a virtual network named VNET2. VM1 connects to a virtual network named VNET2 by using a network interface named NIC1.

You need to create a new network interface named NIC2 for VM1.

Solution: You create NIC2 in RG1 and West US. Does this meet the goal?

- A. Yes
- B. No

**Correct Answer: A**

The virtual machine you attach a network interface to and the virtual network you connect it to must exist in the same location, here West US, also referred to as a region.

Reference:

<https://docs.microsoft.com/en-us/azure/virtual-network/virtual-network-network-interface>

**Question #75Topic 4**

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have an Azure subscription named Subscription1 that contains the resources shown in the following table.

Name	Type	Location	Resource group
RG1	Resource group	East US	<i>Not applicable</i>
RG2	Resource group	West Europe	<i>Not applicable</i>
RG3	Resource group	North Europe	<i>Not applicable</i>
VNET1	Virtual network	Central US	RG1
VM1	Virtual machine	West US	RG2

Subscription1 also includes a virtual network named VNET2. VM1 connects to a virtual network named VNET2 by using a network interface named NIC1.

You need to create a new network interface named NIC2 for VM1.

Solution: You create NIC2 in RG2 and Central US. Does this meet the goal?

- A. Yes
- B. No

**Correct Answer: B**

The virtual machine you attach a network interface to and the virtual network you connect it to must exist in the same location, here West US, also referred to as a region.

Reference: <https://docs.microsoft.com/en-us/azure/virtual-network/virtual-network-network-interface>

**Question #76Topic 4**

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have an Azure subscription named Subscription1 that contains the resources shown in the following table.

Name	Type	Location	Resource group
RG1	Resource group	East US	<i>Not applicable</i>
RG2	Resource group	West Europe	<i>Not applicable</i>
RG3	Resource group	North Europe	<i>Not applicable</i>
VNET1	Virtual network	Central US	RG1
VM1	Virtual machine	West US	RG2

Subscription1 also includes a virtual network named VNET2. VM1 connects to a virtual network named VNET2 by using a network interface named NIC1.

You need to create a new network interface named NIC2 for VM1.

Solution: You create NIC2 in RG2 and West US. Does this meet the goal?

- A. Yes
- B. No

**Correct Answer: A**

The virtual machine you attach a network interface to and the virtual network you connect it to must exist in the same location, here West US, also referred to as a region.

Reference:

<https://docs.microsoft.com/en-us/azure/virtual-network/virtual-network-network-interface>

**Question #77Topic 4**

You develop the following Azure Resource Manager (ARM) template to create a resource group and deploy an Azure Storage account to the resource group.

```
{
    "$schema": "https://schema.management.azure.com/schemas/2015-01-01/deploymentTemplate.json#",
    "contentVersion": "1.0.0.0",
    "resources": [
        {
            "type": "Microsoft.Resources/resourceGroups",
            "apiVersion": "2018-05-01",
            "location": "eastus",
            "name": "RG1"
        },
        {
            "type": "Microsoft.Resources/deployments",
            "apiVersion": "2017-05-10",
            "name": "storageDeployment",
            "resourceGroup": "RG1",
            "dependsOn": [
                "[resourceId('Microsoft.Resources/resourceGroups/', 'RG1')]"
            ],
            "properties": {
                "mode": "Incremental",
                "template": {
                    "$schema": "https://schema.management.azure.com/schemas/2015-01-01/deploymentTemplate.json#",
                    "contentVersion": "1.0.0.0",
                    "resources": [
                        {
                            "type": "Microsoft.Storage/storageAccounts",
                            "apiVersion": "2017-10-01",
                            "name": "storage1",
                            "location": "eastus",
                            "kind": "StorageV2",
                            "sku": {
                                "name": "Standard_LRS"
                            }
                        }
                    ]
                }
            }
        }
    ]
}
```

Which cmdlet should you run to deploy the template?

- A. New-AzResource
- B. New-AzResourceGroupDeployment
- C. New-AzTenantDeployment
- D. New-AzDeployment

#### **Correct Answer: D**

Deployment scope.

You can target your deployment to a resource group, subscription, management group, or tenant. Depending on the scope of the deployment, you use different commands.

To deploy to a resource group, use New-AzResourceGroupDeployment.

Incorrect:

Not C: To deploy to a tenant, use New-AzTenantDeployment.

Not D: To deploy to a subscription, use New-AzSubscriptionDeployment which is an alias of the NewAzDeployment cmdlet.

To deploy to a management group, use New-AzManagementGroupDeployment.

Not A: The New-AzResource cmdlet creates an Azure resource, such as a website, Azure SQL Database server, or Azure SQL Database, in a resource group.

Reference:

<https://docs.microsoft.com/en-us/azure/azure-resource-manager/templates/deploy-powershell>

Question #78 Topic 4

HOTSPOT -

You have an Azure App Service app named WebApp1 that contains two folders named Folder1 and Folder2.

You need to configure a daily backup of WebApp1. The solution must ensure that Folder2 is excluded from the backup.

What should you create first, and what should you use to exclude Folder2? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

### Answer Area

First create:

- An Azure Storage account
- A Backup vault
- A Recovery Services vault
- A resource group

To exclude Folder2, use:

- A \_backup.filter file
- A backup policy
- A lock
- A WebJob

Correct

Answer:

## Answer Area

First create:

- An Azure Storage account
- A Backup vault
- A Recovery Services vault
- A resource group

To exclude Folder2, use:

- A \_backup.filter file
- A backup policy
- A lock
- A WebJob

Box 1: An Azure Storage account -

App Service can back up the following information to an Azure storage account and container that you have configured your app to use.

App configuration -

File content -

Database connected to your app -

Note: Choose your backup destination by selecting a Storage Account and Container. The storage account must belong to the same subscription as the app you want to back up. If you wish, you can create a new storage account or a new container in the respective pages.

Box 2: A \_backup.filter file -

Exclude files from your backup.

Suppose you have an app that contains log files and static images that have been backup once and are not going to change. In such cases, you can exclude those folders and files from being stored in your future backups. To exclude files and folders from your backups, create a \_backup.filter file in the D:\home\site\wwwroot folder of your app. Specify the list of files and folders you want to exclude in this file.

Reference: <https://docs.microsoft.com/en-us/azure/app-service/manage-backup>

Question #79 Topic 4

You plan to deploy several Azure virtual machines that will run Windows Server 2019 in a virtual machine scale set by using an Azure Resource Manager template.

You need to ensure that NGINX is available on all the virtual machines after they are deployed. What should you use?

- A. the Publish-AzVMDscConfiguration cmdlet
- B. Azure Application Insights
- C. Azure Custom Script Extension
- D. a Microsoft Endpoint Manager device configuration profile

Correct Answer: C

Use Azure Resource Manager templates to install applications into virtual machine scale sets with the Custom Script Extension.

Note: The Custom Script Extension downloads and executes scripts on Azure VMs. This extension is useful for post deployment configuration, software installation, or any other configuration / management task. To see the Custom Script Extension in action, create a scale set that installs the NGINX web server and outputs the hostname of the scale set VM instance.

Reference:

<https://docs.microsoft.com/en-us/azure/virtual-machine-scale-sets/tutorial-install-apps-template>

Question #80*Topic 4*

HOTSPOT -

You have an Azure subscription. The subscription contains a virtual machine that runs Windows 10.

You need to join the virtual machine to an Active Directory domain.

How should you complete the Azure Resource Manager (ARM) template? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

## Answer Area

```
{  
    "apiVersion": "2017-03-30",  
    "type": "Microsoft.Compute/VirtualMachines",  
    "type": "Microsoft.Compute/virtualMachines/extensions",  
    "name": "[concat(parameters('VName'), '/joindomain')]",  
    "location": "[parameter('location')]",  
    "properties": {  
        "publisher": "Microsoft.Compute",  
        "type": "JsonADDomainExtension",  
        "typeHandlerVersion": "1.3",  
        "autoUpgradeMinorVersion": true,  
        "settings": {  
            "Name": "[parameters('domainName')]",  
            "User": "[parameters('domainusername')]",  
            "Restart": "true",  
            "Options": "3"  
        },  
        "ProtectedSettings": {  
            "Settings": {},  
            "Statuses": {}  
        },  
        "Password": "[parameters('domainPassword')]"  
    }  
}
```

Correct

Answer:

## Answer Area

```
{  
    "apiVersion": "2017-03-30",  
    "type": "Microsoft.Compute/VirtualMachines",  
    "name": "[concat(parameters('VName'), '/joindomain')]",  
    "location": "[parameter('location')]",  
    "properties": {  
        "publisher": "Microsoft.Compute",  
        "type": "JsonADDomainExtension",  
        "typeHandlerVersion": "1.3",  
        "autoUpgradeMinorVersion": true,  
        "settings": {  
            "Name": "[parameters('domainName')]",  
            "User": "[parameters('domainusername')]",  
            "Restart": "true",  
            "Options": "3"  
        },  
        "ProtectedSettings": {  
            "Settings": {},  
            "Statuses": {}  
        }  
    }  
}  
}
```

Box 1: "Microsoft.Compute/VirtualMachines/extensions",

The following JSON example uses the Microsoft.Compute/virtualMachines/extensions resource type to install the Active Directory domain join extension.

Parameters are used that you specify at deployment time. When the extension is deployed, the VM is joined to the specified managed domain. Box 2: "ProtectedSettings":{ Example:

```
{  
    "apiVersion": "2015-06-15",  
    "type": "Microsoft.Compute/virtualMachines/extensions",  
    "name": "[concat(parameters('dnsLabelPrefix'), '/joindomain')]",  
    "location": "[parameters('location')]",  
    "dependsOn": [  
        "[concat('Microsoft.Compute/virtualMachines/', parameters('dnsLabelPrefix'))]"  
    ],  
    "properties": {  
        "publisher": "Microsoft.Compute",  
        "type": "JsonADDomainExtension",  
        "typeHandlerVersion": "1.3",  
        "autoUpgradeMinorVersion": true,  
        "settings": {  
            "Name": "[parameters('domainName')]",  
            "User": "[parameters('domainusername')]",  
            "Restart": "true",  
            "Options": "3"  
        },  
        "ProtectedSettings": {  
            "Settings": {},  
            "Statuses": {}  
        }  
    }  
}
```

```

"type": "JsonADDomainExtension",
"typeHandlerVersion": "1.3",
"autoUpgradeMinorVersion": true,
"settings": {
  "Name": "[parameters('domainToJoin')]",
  "OUPath": "[parameters('ouPath')]",
  "User": "[concat(parameters('domainToJoin'), '\\\\', parameters('domainUsername'))]", "Restart": "true",
  "Options": "[parameters('domainJoinOptions')]"
},
"protectedSettings": {
  "Password": "[parameters('domainPassword')]"
}
}
}
}

```

Reference: <https://docs.microsoft.com/en-us/azure/active-directory-domain-services/join-windows-vm-template>

Question #81 Topic 4

You have an Azure subscription that contains the resources shown in the following table.

Name	Type	Resource group	Location
RG1	Resource group	<i>Not applicable</i>	Central US
RG2	Resource group	<i>Not applicable</i>	West US
VMSS1	Virtual machine scale set	RG2	West US
Proximity1	Proximity placement group	RG1	West US
Proximity2	Proximity placement group	RG2	Central US
Proximity3	Proximity placement group	RG1	Central US

You need to configure a proximity placement group for VMSS1. Which proximity placement groups should you use?

- A. Proximity2 only
- B. Proximity1, Proximity2, and Proximity3
- C. Proximity1 only
- D. Proximity1 and Proximity3 only

**Correct Answer: C**

Resource Group location of VMSS1 is the RG2 location, which is West US.

Only Proximity1, which also in RG2, is located in West US

Note: When you assign your virtual machines to a proximity placement group, the virtual machines are placed in the same data center, resulting in lower and deterministic latency for your applications.

Reference:

<https://azure.microsoft.com/en-us/blog/introducing-proximity-placement-groups/>

Question #82 Topic 4

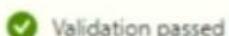
HOTSPOT

-

You are creating an Azure Kubernetes Services (AKS) cluster as shown in the following exhibit.

# Create Kubernetes cluster

...



Validation passed

## Basics

Subscription	Visual Studio Premium with MSDN
Resource group	RG1
Region	West Europe
Kubernetes cluster name	AKS1
Kubernetes version	1.20.9

## Node pools

Node pools	1
Enable virtual nodes	Disabled
Enable virtual machine scale sets	Enabled

## Authentication

Authentication method	Service principal
Role-based access control (RBAC)	Enabled
AKS-managed Azure Active Directory	Disabled
Encryption type	(Default) Encryption at-rest with a platform-managed key

## Networking

Network configuration	Kubenet
DNS name prefix	AKS1-dns
Load balancer	Standard
Private cluster	Disabled
Authorized IP ranges	Disabled
Network policy	None
HTTP application routing	No

[Create](#)

[< Previous](#)

[Next >](#)

[Download a template for automation](#)

Use the drop-down menus to select the answer choice that completes each statement based on the information presented in the graphic.

NOTE: Each correct selection is worth one point.

### Answer Area

To ensure that you can create Windows containers in AKS1, you must [answer choice].

enable virtual nodes
increase the number of node pools
modify the Kubernetes version setting
modify the Network configuration setting

To ensure that you can integrate AKS1 with an Azure container registry, you must modify the [answer choice] setting.

AKS-managed Azure Active Directory
Authentication method
Authorized IP ranges
Kubernetes version
Network configuration

**Correct**

**Answer:**

### Answer Area

To ensure that you can create Windows containers in AKS1, you must [answer choice].

enable virtual nodes
increase the number of node pools
modify the Kubernetes version setting
modify the Network configuration setting

To ensure that you can integrate AKS1 with an Azure container registry, you must modify the [answer choice] setting.

AKS-managed Azure Active Directory
Authentication method
Authorized IP ranges
Kubernetes version
Network configuration

Question #83 Topic 4

HOTSPOT

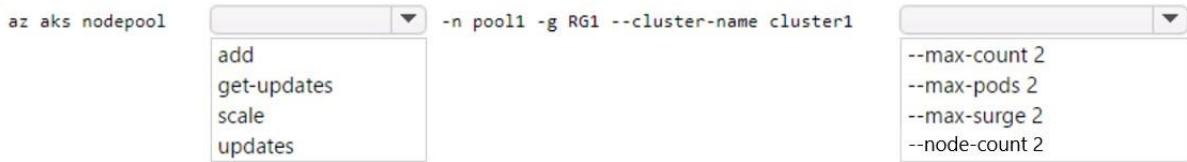
You have an Azure subscription that contains an Azure Kubernetes Service (AKS) cluster named Cluster1. Cluster1 hosts a node pool named Pool1 that has four nodes.

You need to perform a coordinated upgrade of Cluster1. The solution must meet the following requirements:

- Deploy two new nodes to perform the upgrade.
- Minimize costs.

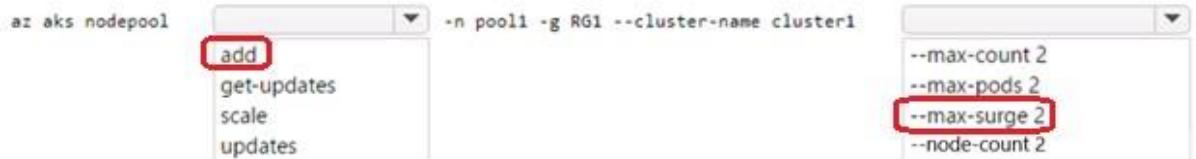
How should you complete the command? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.



**Correct**

**Answer:**



Question #84 Topic 4

HOTSPOT

You have an Azure subscription.

You create the following file named Deploy.json.

```
{
  "$schema": "https://schema.management.azure.com/schemas/2019-04-01/deploymentTemplate.json#",
  "contentVersion": "1.0.0.0",
  "parameters": {
    "location": {
      "type": "string",
      "defaultValue": "westus"
    }
  },
  "resources": [
    {
      "apiVersion": "2019-04-01",
      "type": "Microsoft.Storage/storageAccounts",
      "name": "[concat(copyIndex(), 'storage', uniqueString(resourceGroup().id))]",
      "location": "[resourceGroup().location]",
      "sku": {
        "name": "Premium_LRS"
      },
      "kind": "StorageV2",
      "properties": {},
      "copy": {
        "name": "storagecopy",
        "count": 3
      }
    }
  ]
}
```

You connect to the subscription and run the following commands.

```
New-AzResourceGroup -Name RG1 -Location "centralus"  
New-AzResourceGroupDeployment -ResourceGroupName RG1 -TemplateFile "deploy.json"
```

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point.

**Answer Area**

Statements	Yes	No
The commands will create four new resources.	<input type="radio"/>	<input type="radio"/>
The commands will create storage accounts in the West US Azure region.	<input type="radio"/>	<input type="radio"/>
The first storage account that is created will have a prefix of 0.	<input type="radio"/>	<input type="radio"/>

**Correct**

**Answer:**

**Answer Area**

Statements	Yes	No
The commands will create four new resources.	<input checked="" type="checkbox"/>	<input type="radio"/>
The commands will create storage accounts in the West US Azure region.	<input type="radio"/>	<input checked="" type="checkbox"/>
The first storage account that is created will have a prefix of 0.	<input checked="" type="checkbox"/>	<input type="radio"/>

**Question #85 Topic 4**

You plan to deploy several Azure virtual machines that will run Windows Server 2019 in a virtual machine scale set by using an Azure Resource Manager template.

You need to ensure that NGINX is available on all the virtual machines after they are deployed.

What should you use?

- A. Azure Custom Script Extension
- B. Deployment Center in Azure App Service
- C. the Publish-AzVMDscConfiguration cmdlet
- D. the New-AzConfigurationAssignment cmdlet

**Correct Answer: A**

**Question #86 Topic 4**

HOTSPOT

You have an Azure subscription that contains a resource group named RG1.

You plan to use an Azure Resource Manager (ARM) template named template1 to deploy resources. The solution must meet the following requirements:

- Deploy new resources to RG1.
- Remove all the existing resources from RG1 before deploying the new resources.

How should you complete the command? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

## Answer Area

```
New-AzResourceGroupDeployment -TemplateUri  
"https://contoso.com/template1" -TemplateParameterfile
```

params.json	RG1 -Mode
<ul style="list-style-type: none"><li>-Name</li><li>-QueryString</li><li>-ResourceGroupName</li><li>-Tag</li></ul>	<ul style="list-style-type: none"><li>All</li><li>Complete</li><li>Incremental</li></ul>

Correct

Answer:

```
New-AzResourceGroupDeployment -TemplateUri  
"https://contoso.com/template1" -TemplateParameterfile
```

params.json	RG1 -Mode
<ul style="list-style-type: none"><li>-Name</li><li>-QueryString</li><li><b>-ResourceGroupName</b></li><li>-Tag</li></ul>	<ul style="list-style-type: none"><li>All</li><li><b>Complete</b></li><li>Incremental</li></ul>

Question #87 Topic 4

HOTSPOT

You have an Azure App Service web app named app1.

You configure autoscaling as shown in following exhibit.

**Default\*** Auto created scale condition 

 Delete warning  The very last or default recurrence rule cannot be deleted. Instead, you can disable autoscale to turn off autoscale.

Scale mode  Scale based on a metric  Scale to a specific instance count

Rules  It is recommended to have at least one scale in rule. To create new rules, click [Add a rule](#).

Scale out

When	(Average) CpuPercentage > 70	Increase count by 1
------	------------------------------	---------------------

[+ Add a rule](#)

Instance limits

Minimum 	1 	Maximum 	5 	Default 	1 
---	---	---	---	---	---

Schedule **This scale condition is executed when none of the other scale condition(s) match**

You configure the autoscale rule criteria as shown in the following exhibit.

### Criteria

Time aggregation \*

Maximum

Metric namespace \*

App Service plans standard metrics

Metric name

CPU Percentage

1 minute time grain

Dimension Name

Operator

Dimension Values

Add

Instance

=

All values



If you select multiple values for a dimension, autoscale will aggregate the metric across the selected values, not evaluate the metric for each value individually.



CpuPercentage (Maximum)

1.67 %

Enable metric divide by instance count

Operator \*

Metric threshold to trigger scale action \*

Greater than



70

%

Duration (minutes) \*

10

Time grain (minutes)

1

Time grain statistic \*

Average



### Action

Operation \*

Cool down (minutes) \*

Increase count by



5

Instance count \*

1



Use the drop-down menus to select the answer choice that answers each question based on the information presented in the graphic.

NOTE: Each correct selection is worth one point.

After CPU usage has reached 80 percent for 15 minutes, [answer choice] will be running.

1 instance  
2 instances  
3 instances  
4 instances  
5 instances

Once the first scale-out instance is created, the minimum time before an additional instance is created will be [answer choice].

1 minute  
5 minutes  
10 minutes  
15 minutes

**Correct**

**Answer:**

After CPU usage has reached 80 percent for 15 minutes, [answer choice] will be running.

1 instance  
**2 instances**  
3 instances  
4 instances  
5 instances

Once the first scale-out instance is created, the minimum time before an additional instance is created will be [answer choice].

1 minute  
5 minutes  
10 minutes  
**15 minutes**

Question #88Topic 4

You have an Azure subscription.

You plan to deploy the Azure container instances shown in the following table.

Name	Operating system
Instance1	Nano Server installation of Windows Server 2019
Instance2	Server Core installation of Windows Server 2019
Instance3	Linux
Instance4	Linux

Which instances can you deploy to a container group?

- A. Instance1 only
- B. Instance2 only
- C. Instance1 and Instance2 only
- D. Instance3 and Instance4 only

**Correct Answer: D**

Question #89 *Topic 4*

You plan to deploy several Azure virtual machines that will run Windows Server 2019 in a virtual machine scale set by using an Azure Resource Manager template.

You need to ensure that NGINX is available on all the virtual machines after they are deployed.

What should you use?

- A. Azure Custom Script Extension
- B. Deployment Center in Azure App Service
- C. the New-AzConfigurationAssignment cmdlet
- D. Azure AD Application Proxy

**Correct Answer:** A

Question #86 *Topic 4*

HOTSPOT

You have an Azure subscription that contains a resource group named RG1.

You plan to use an Azure Resource Manager (ARM) template named template1 to deploy resources. The solution must meet the following requirements:

- Deploy new resources to RG1.
- Remove all the existing resources from RG1 before deploying the new resources.

How should you complete the command? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

**Answer Area**

```
New-AzResourceGroupDeployment -TemplateUri  
"https://contoso.com/template1" -TemplateParameterfile
```

params.json

-Name
-QueryString
-ResourceGroupName
-Tag

RG1 -Mode

All
Complete
Incremental

**Correct**

**Answer:**

```
New-AzResourceGroupDeployment -TemplateUri  
"https://contoso.com/template1" -TemplateParameterfile
```



**Question #87 Topic 4**

HOTSPOT

You have an Azure App Service web app named app1.

You configure autoscaling as shown in following exhibit.

The screenshot shows the 'Default' autoscale configuration for 'app1'. It includes a warning about deleting the default rule and allows scaling based on a metric or a specific instance count. A single rule is defined to scale out when the average CPU percentage exceeds 70%, increasing the instance count by 1. Instance limits are set to a minimum of 1, maximum of 5, and default of 1. The schedule indicates the condition is executed when no other rules match.

Condition	When	Action
Scale out	(Average) CpuPercentage > 70	Increase count by 1

Instance limits:

Setting	Value	Status
Minimum	1	✓
Maximum	5	✓
Default	1	✓

You configure the autoscale rule criteria as shown in the following exhibit.

### Criteria

Time aggregation \*

Maximum

Metric namespace \*

App Service plans standard metrics

Metric name

CPU Percentage

1 minute time grain

Dimension Name

Operator

Dimension Values

Add

Instance

=

All values



If you select multiple values for a dimension, autoscale will aggregate the metric across the selected values, not evaluate the metric for each value individually.



CpuPercentage (Maximum)

1.67 %

Enable metric divide by instance count

Operator \*

Metric threshold to trigger scale action \*

Greater than

70

%

Duration (minutes) \*

10

Time grain (minutes)

Time grain statistic \*

1

Average

### Action

Operation \*

Cool down (minutes) \*

Increase count by

5

Instance count \*

1

Use the drop-down menus to select the answer choice that answers each question based on the information presented in the graphic.

NOTE: Each correct selection is worth one point.

After CPU usage has reached 80 percent for 15 minutes, [answer choice] will be running.

1 instance  
2 instances  
3 instances  
4 instances  
5 instances

Once the first scale-out instance is created, the minimum time before an additional instance is created will be [answer choice].

1 minute  
5 minutes  
10 minutes  
15 minutes

**Correct**

**Answer:**

After CPU usage has reached 80 percent for 15 minutes, [answer choice] will be running.

1 instance  
**2 instances**  
3 instances  
4 instances  
5 instances

Once the first scale-out instance is created, the minimum time before an additional instance is created will be [answer choice].

1 minute  
5 minutes  
10 minutes  
**15 minutes**

Question #88Topic 4

You have an Azure subscription.

You plan to deploy the Azure container instances shown in the following table.

Name	Operating system
Instance1	Nano Server installation of Windows Server 2019
Instance2	Server Core installation of Windows Server 2019
Instance3	Linux
Instance4	Linux

Which instances can you deploy to a container group?

- A. Instance1 only
- B. Instance2 only
- C. Instance1 and Instance2 only
- D. Instance3 and Instance4 only

**Correct Answer: D**

**Question #89Topic 4**

You plan to deploy several Azure virtual machines that will run Windows Server 2019 in a virtual machine scale set by using an Azure Resource Manager template.

You need to ensure that NGINX is available on all the virtual machines after they are deployed.

What should you use?

- A. Azure Custom Script Extension
- B. Deployment Center in Azure App Service
- C. the New-AzConfigurationAssignment cmdlet
- D. Azure AD Application Proxy

**Correct Answer:** A

**Question #90Topic 4**

You have an Azure subscription that has the public IP addresses shown in the following table.

Name	IP version	SKU	Tier	IP address assignment
IP1	IPv4	Standard	Regional	Static
IP2	IPv4	Standard	Global	Static
IP3	IPv4	Basic	Regional	Dynamic
IP4	IPv4	Basic	Regional	Static
IP5	IPv6	Standard	Regional	Static

You plan to deploy an Instance of Azure Firewall Premium named FW1.

Which IP addresses can you use?

- A. IP2 only
- B. IP1 and IP2 only
- C. IP1, IP2, and IP5 only
- D. IP1, IP2, IP4, and IP5 only

**Correct Answer:**A

**Topic 5 - Question Set 5**

**Question #1Topic 5**

HOTSPOT -

You have an Azure subscription named Sub1.

You plan to deploy a multi-tiered application that will contain the tiers shown in the following table.

Tier	Accessible from the Internet	Number of virtual machines
Front-end web server	Yes	10
Business logic	No	100
Microsoft SQL Server database	No	5

You need to recommend a networking solution to meet the following requirements:

- Ensure that communication between the web servers and the business logic tier spreads equally across the virtual machines.
- Protect the web servers from SQL injection attacks.

Which Azure resource should you recommend for each requirement? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

#### Answer Area

Ensure that communication between the web servers and the business logic tier spreads equally across the virtual machines:

- an application gateway that uses the Standard tier
- an application gateway that uses the WAF tier
- an internal load balancer
- a network security group (NSG)
- a public load balancer

Protect the web servers from SQL injection attacks:

- an application gateway that uses the Standard tier
- an application gateway that uses the WAF tier
- an internal load balancer
- a network security group (NSG)
- a public load balancer

Correct

Answer:

#### Answer Area

Ensure that communication between the web servers and the business logic tier spreads equally across the virtual machines:

- an application gateway that uses the Standard tier
- an application gateway that uses the WAF tier
- an internal load balancer
- a network security group (NSG)
- a public load balancer

Protect the web servers from SQL injection attacks:

- an application gateway that uses the Standard tier
- an application gateway that uses the WAF tier
- an internal load balancer
- a network security group (NSG)
- a public load balancer

Box 1: an internal load balancer

Azure Internal Load Balancer (ILB) provides network load balancing between virtual machines that reside inside a cloud service or a virtual network with a regional scope.

Box 2: an application gateway that uses the WAF tier

Azure Web Application Firewall (WAF) on Azure Application Gateway provides centralized protection of your web applications from common exploits and vulnerabilities. Web applications are increasingly targeted by malicious attacks that exploit commonly known vulnerabilities.

Reference: <https://docs.microsoft.com/en-us/azure/web-application-firewall/ag/ag-overview>

Question #2 *Topic 5*

Your company has three offices. The offices are located in Miami, Los Angeles, and New York. Each office contains datacenter.

You have an Azure subscription that contains resources in the East US and West US Azure regions. Each region contains a virtual network. The virtual networks are peered.

You need to connect the datacenters to the subscription. The solution must minimize network latency between the datacenters. What should you create?

- A. three Azure Application Gateways and one On-premises data gateway
- B. three virtual hubs and one virtual WAN
- C. three virtual WANs and one virtual hub
- D. three On-premises data gateways and one Azure Application Gateway

**Correct Answer:** C Reference:

<https://docs.microsoft.com/en-us/azure/virtual-wan/virtual-wan-about>

Question #3 *Topic 5 HOTSPOT*

You plan to deploy five virtual machines to a virtual network subnet.

Each virtual machine will have a public IP address and a private IP address.

Each virtual machine requires the same inbound and outbound security rules.

What is the minimum number of network interfaces and network security groups that you require? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

## Answer Area

Minimum number of network interfaces:

5
10
15
20

Minimum number of network security groups:

1
2
5
10

Correct

Answer:

## Answer Area

Minimum number of network interfaces:

5
10
15
20

Minimum number of network security groups:

1
2
5
10

Box 1: 5 -

A public and a private IP address can be assigned to a single network interface.

Box 2: 1 -

You can associate zero, or one, network security group to each virtual network subnet and network interface in a virtual machine. The same network security group can be associated to as many subnets and network interfaces as you choose.

Reference:

<https://docs.microsoft.com/en-us/azure/virtual-network/virtual-network-network-interface-addresses>

Question #4 Topic 5

You have an Azure subscription that contains the resources shown in the following table.

Name	Type
LB1	Load balancer
VM1	Virtual machine
VM2	Virtual machine

LB1 is configured as shown in the following table.

Name	Type	Value
bepool1	Backend pool	VM1, VM2
LoadBalancerFrontEnd	Frontend IP configuration	Public IP address
hprobe1	Health probe	Protocol: TCP Port: 80 Interval: 5 seconds Unhealthy threshold: 2
rule1	Load balancing rule	IP version: IPv4 Frontend IP address: LoadBalancerFrontEnd Port: 80 Backend Port: 80 Backend pool: bepool1 Health probe: hprobe1

You plan to create new inbound NAT rules that meet the following requirements:

□ Provide Remote Desktop access to VM1 from the internet by using port 3389.

□ Provide Remote Desktop access to VM2 from the internet by using port 3389.

What should you create on LB1 before you can create the new inbound NAT rules?

- A. a frontend IP address
- B. a load balancing rule
- C. a health probe
- D. a backend pool

**Correct Answer: A**

Question #5 Topic 5 HOTSPOT

You have Azure virtual machines that run Windows Server 2019 and are configured as shown in the following table.

Name	Private IP address	Public IP address	Virtual network name	DNS suffix configured in Windows Server
VM1	10.1.0.4	52.186.85.63	VNET1	Adatum.com
VM2	10.1.0.5	13.92.168.13	VNET1	Contoso.com

You create a private Azure DNS zone named adatum.com. You configure the adatum.com zone to allow auto registration from VNET1.

Which A records will be added to the adatum.com zone for each virtual machine? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.  
Hot Area:

### Answer Area

A records for VM1:

None
Private IP address only
Public IP address only
Private IP address and public IP address

A records for VM2:

None
Private IP address only
Public IP address only
Private IP address and public IP address

Correct

Answer:

### Answer Area

A records for VM1:

None
Private IP address only
Public IP address only
Private IP address and public IP address

A records for VM2:

None
Private IP address only
Public IP address only
Private IP address and public IP address

The virtual machines are registered (added) to the private zone as A records pointing to their private IP addresses. Reference: <https://docs.microsoft.com/en-us/azure/dns/private-dns-overview>

<https://docs.microsoft.com/enus/azure/dns/private-dns-scenarios>

Question #6 Topic 5 HOTSPOT

-

You have an Azure virtual network named VNet1 that connects to your on-premises network by using a site-to-site VPN. VNet1 contains one subnet named Sunet1.

Subnet1 is associated to a network security group (NSG) named NSG1. Subnet1 contains a basic internal load balancer named ILB1. ILB1 has three Azure virtual machines in the backend pool.

You need to collect data about the IP addresses that connects to ILB1. You must be able to run interactive queries from the Azure portal against the collected data.

What should you do? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point. Hot Area:

## Answer Area

Resource to create:

- An Azure Event Grid
- An Azure Log Analytics workspace
- An Azure Storage account

Resource on which to enable diagnostics:

- ILB1
- NSG1
- The Azure virtual machines

Correct

Answer:

## Answer Area

Resource to create:

- An Azure Event Grid
- An Azure Log Analytics workspace
- An Azure Storage account

Resource on which to enable diagnostics:

- ILB1
- NSG1
- The Azure virtual machines

Box 1: An Azure Log Analytics workspace

In the Azure portal you can set up a Log Analytics workspace, which is a unique Log Analytics environment with its own data repository, data sources, and solutions

Box 2: ILB1 - Reference: <https://docs.microsoft.com/en-us/azure/log-analytics/log-analytics-quick-create-workspace> <https://docs.microsoft.com/en-us/azure/load-balancer/load-balancer-standard-diagnostics> Question #7 Topic 5

You have the Azure virtual networks shown in the following table.

Name	Address space	Subnet	Resource group Azure region
VNet1	10.11.0.0/16	10.11.0.0/17	West US
VNet2	10.11.0.0/17	10.11.0.0/25	West US
VNet3	10.10.0.0/22	10.10.1.0/24	East US
VNet4	192.168.16.0/22	192.168.16.0/24	North Europe

To which virtual networks can you establish a peering connection from VNet1?

- A. VNet2 and VNet3 only
- B. VNet2 only
- C. VNet3 and VNet4 only
- D. VNet2, VNet3, and VNet4

**Correct Answer: C**

Address spaces must not overlap to enable VNet Peering.

Incorrect Answers:

A, B, D: The address space for VNet2 overlaps with VNet1. We therefore cannot establish a peering between VNet2 and VNet1.

Reference: <https://docs.microsoft.com/en-us/azure/virtual-network/tutorial-connect-virtual-networks-portal> <https://docs.microsoft.com/en-us/azure/virtual-network/virtual-networks-faq#vnet-peering>

#### Question #8 Topic 5

You have an Azure subscription that contains a virtual network named VNet1. VNet1 contains four subnets named Gateway, Perimeter, NVA, and Production.

The NVA subnet contains two network virtual appliances (NVAs) that will perform network traffic inspection between the Perimeter subnet and the Production subnet.

You need to implement an Azure load balancer for the NVAs. The solution must meet the following requirements:

- ☞ The NVAs must run in an active-active configuration that uses automatic failover.
- ☞ The load balancer must load balance traffic to two services on the Production subnet. The services have different IP addresses.

Which three actions should you perform? Each correct answer presents part of the solution. NOTE: Each correct selection is worth one point.

- A. Deploy a basic load balancer
- B. Deploy a standard load balancer
- C. Add two load balancing rules that have HA Ports and Floating IP enabled
- D. Add two load balancing rules that have HA Ports enabled and Floating IP disabled
- E. Add a frontend IP configuration, a backend pool, and a health probe
- F. Add a frontend IP configuration, two backend pools, and a health probe

**Correct Answer: BDE**

A standard load balancer is required for the HA ports.

Two backend pools are needed as there are two services with different IP addresses.

Floating IP rule is used where backend ports are reused. Incorrect Answers:

E: HA Ports are not available for the basic load balancer.

Reference:

<https://docs.microsoft.com/en-us/azure/load-balancer/load-balancer-standard-overview>

<https://docs.microsoft.com/en-us/azure/load-balancer/load-balancer-multivip-overview>

#### Other

##### Question #9 *Topic 5*

You have an Azure subscription named Subscription1 that contains two Azure virtual networks named VNet1 and VNet2. VNet1 contains a VPN gateway named VPNGW1 that uses static routing. There is a site-to-site VPN connection between your on-premises network and VNet1.

On a computer named Client1 that runs Windows 10, you configure a point-to-site VPN connection to VNet1.

You configure virtual network peering between VNet1 and VNet2. You verify that you can connect to VNet2 from the on-premises network. Client1 is unable to connect to VNet2.

You need to ensure that you can connect Client1 to VNet2. What should you do?

- A. Download and re-install the VPN client configuration package on Client1.
- B. Select Allow gateway transit on VNet1.
- C. Select Allow gateway transit on VNet2.
- D. Enable BGP on VPNGW1

##### **Correct Answer:** A

Reference:

<https://docs.microsoft.com/en-us/azure/vpn-gateway/vpn-gateway-about-point-to-site-routing>

##### Question #10 *Topic 5*

HOTSPOT -

You have an Azure subscription. The subscription contains virtual machines that run Windows Server 2016 and are configured as shown in the following table.

Name	Virtual network	DNS suffix configured in Windows Server
VM1	VNET2	Contoso.com
VM2	VNET2	None
VM3	VNET2	Adatum.com

You create a public Azure DNS zone named adatum.com and a private Azure DNS zone named contoso.com.

You create a virtual network link for contoso.com as shown in the following exhibit.

# link1

contoso.com

Save  Discard  Delete  Access Control (IAM)  Tags

Link name

link1

Link state

Completed

Provisioning state

Succeeded

Virtual network details

Virtual network id

/subscriptions/8372f433-2dcd-4361-b5ef-5b188fed87d0/resourceGroups/RG2/provi...

Virtual network

VNET2

Configuration

Enable auto registration ①

For each of the following statements, select Yes if the statement is true. Otherwise, select No. NOTE:

Each correct selection is worth one point.

Hot Area:

## Answer Area

Statements	Yes	No
When VM1 starts, a record for VM1 is added to the contoso.com DNS zone.	<input type="radio"/>	<input type="radio"/>
When VM2 starts, a record for VM2 is added to the contoso.com DNS zone.	<input type="radio"/>	<input type="radio"/>
When VM3 starts, a record for VM3 is added to the adatum.com DNS zone.	<input type="radio"/>	<input type="radio"/>

Correct

Answer:

## Answer Area

Statements	Yes	No
When VM1 starts, a record for VM1 is added to the contoso.com DNS zone.	<input checked="" type="radio"/>	<input type="radio"/>
When VM2 starts, a record for VM2 is added to the contoso.com DNS zone.	<input checked="" type="radio"/>	<input type="radio"/>
When VM3 starts, a record for VM3 is added to the adatum.com DNS zone.	<input type="radio"/>	<input checked="" type="radio"/>

Reference:

<https://docs.microsoft.com/en-us/azure/virtual-network/virtual-networks-name-resolution-for-vms-and-role-instances> <https://docs.microsoft.com/en-us/azure/dns/private-dns-autoregistration>

Question #11Topic 5

You have an Azure subscription that contains the resources in the following table.

Name	Type	Azure region	Resource group
VNet1	Virtual network	West US	RG2
VNet2	Virtual network	West US	RG1
VNet3	Virtual network	East US	RG1
NSG1	Network security group (NSG)	East US	RG2

To which subnets can you apply NSG1?

- A. the subnets on VNet1 only
- B. the subnets on VNet2 and VNet3 only
- C. the subnets on VNet2 only
- D. the subnets on VNet3 only
- E. the subnets on VNet1, VNet2, and VNet3

»

Correct Answer: D

All Azure resources are created in an Azure region and subscription. A resource can only be created in a virtual network that exists in the same region and subscription as the resource.

Reference:

<https://docs.microsoft.com/en-us/azure/virtual-network/virtual-network-vnet-plan-design-arm>

Question #12Topic 5

DRAG DROP -

You have an Azure subscription that contains two virtual networks named VNet1 and VNet2. Virtual machines connect to the virtual networks.

The virtual networks have the address spaces and the subnets configured as shown in the following table.

Virtual network	Address space	Subnet	Peering
VNet1	10.1.0.0/16	10.1.0.0/24 10.1.1.0/26	VNet2
VNet2	10.2.0.0/16	10.2.0.0/24	VNet1

You need to add the address space of 10.33.0.0/16 to VNet1. The solution must ensure that the hosts on VNet1 and VNet2 can communicate.

Which three actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.

Select and Place:

Actions	Answer Area
Remove VNet1.	
Add the 10.33.0.0/16 address space to VNet1.	
Create a new virtual network named VNet1.	
On the peering connection in VNet2, allow gateway transit.	
Recreate peering between VNet1 and VNet2.	 
On the peering connection in VNet1, allow gateway transit.	
Remove peering between VNet1 and VNet2.	

Correct

Answer:

Actions	Answer Area
Remove VNet1.	Remove peering between VNet1 and VNet2.
Add the 10.33.0.0/16 address space to VNet1.	Add the 10.33.0.0/16 address space to VNet1.
Create a new virtual network named VNet1.	Recreate peering between VNet1 and VNet2.
On the peering connection in VNet2, allow gateway transit.	 
Recreate peering between VNet1 and VNet2.	
On the peering connection in VNet1, allow gateway transit.	
Remove peering between VNet1 and VNet2.	

Step 1: Remove peering between Vnet1 and VNet2.

You can't add address ranges to, or delete address ranges from a virtual network's address space once a virtual network is peered with another virtual network.

To add or remove address ranges, delete the peering, add or remove the address ranges, then re-create the peering.

Step 2: Add the 10.44.0.0/16 address space to VNet1.

Step 3: Recreate peering between VNet1 and VNet2

Reference:

<https://docs.microsoft.com/en-us/azure/virtual-network/virtual-network-manage-peering>

#13 Topic 5

HOTSPOT -

You have an Azure subscription that contains the resource groups shown in the following table.

Name	Location
RG1	West US
RG2	East US

RG1 contains the resources shown in the following table.

Name	Type	Location
storage1	Storage account	West US
VNet1	Virtual network	West US
NIC1	Network interface	West US
Disk1	Disk	West US
VM1	Virtual machine	West US

VM1 is running and connects to NIC1 and Disk1. NIC1 connects to VNET1.

RG2 contains a public IP address named IP2 that is in the East US location. IP2 is not assigned to a virtual machine.

For each of the following statements, select Yes if the statement is true. Otherwise, select No. NOTE:  
Each correct selection is worth one point.

Hot Area:

## Answer Area

Statements	Yes	No
You can move storage1 to RG2.	<input type="radio"/>	<input type="radio"/>
You can move NIC1 to RG2.	<input type="radio"/>	<input type="radio"/>
If you move IP2 to RG1, the location of IP2 will change.	<input type="radio"/>	<input type="radio"/>

Correct

Answer:

## Answer Area

Statements	Yes	No
You can move storage1 to RG2.	<input checked="" type="radio"/>	<input type="radio"/>
You can move NIC1 to RG2.	<input type="radio"/>	<input checked="" type="radio"/>
If you move IP2 to RG1, the location of IP2 will change.	<input type="radio"/>	<input checked="" type="radio"/>

Box 1: Yes -

You can move storage -

Box 2: No -

You can't move to a new resource group a NIC that is attached to a virtual machine.

Box 3: No -

Azure Public IPs are region specific and can't be moved from one region to another.

Reference:

<https://docs.microsoft.com/en-us/azure/azure-resource-manager/management/move-supportresources>  
<https://docs.microsoft.com/en-us/azure/virtual-network/move-across-regions-publicippowershell>

### Question #14 Topic 5

You have an Azure web app named webapp1.

You have a virtual network named VNET1 and an Azure virtual machine named VM1 that hosts a MySQL database. VM1 connects to VNET1.

You need to ensure that webapp1 can access the data hosted on VM1. What should you do?

- A. Deploy an internal load balancer
- B. Peer VNET1 to another virtual network
- C. Connect webapp1 to VNET1
- D. Deploy an Azure Application Gateway

**Correct Answer: C**

### Question #15 Topic 5

You create an Azure VM named VM1 that runs Windows Server 2019.

VM1 is configured as shown in the exhibit. (Click the Exhibit tab.)

The screenshot shows the Azure portal interface for a virtual machine named 'VM1'. On the left, there's a navigation sidebar with various management options like Security, Extensions, Continuous delivery (Preview), Availability set, Configuration, Identity, Properties, Locks, Export template, Auto-shutdown, Backup, Disaster recovery, Update management, Inventory, Change tracking, Configuration management ..., Policies, Run command, Insights (preview), Alerts, Metrics, and Diagnostics settings. The main pane displays detailed information about the VM, including its resource group (RG1), status (Stopped (deallocated)), location (West Europe), subscription (Azure Pass – Sponsorship), and subscription ID (80f9d59c-629e-4346-b577-8b7e1ef1316a). It also lists computer name, operating system (Windows), size (Standard DS2 v2 (2 vcpus, 7 GiB memory)), ephemeral OS disk (N/A), public and private IP addresses, virtual network/subnet (VNET1/default), and DNS name (Configure). Below this, there's a section for tags with a placeholder 'Click here to add tags'. At the bottom, there's a timeline for CPU usage from 10:15 PM to 11 PM, showing a value of '--' for VM1. There's also a section for Network (total) with a value of 608.

You need to enable Desired State Configuration for VM1. What should you do first?

- A. Connect to VM1.
- B. Start VM1.
- C. Capture a snapshot of VM1.
- D. Configure a DNS name for VM1.

**Correct Answer: B**

Status is Stopped (Deallocated).

The DSC extension for Windows requires that the target virtual machine is able to communicate with Azure.

The VM needs to be started.

Reference:

<https://docs.microsoft.com/en-us/azure/virtual-machines/extensions/dsc-windows>

Question #16 Topic 5

You have five Azure virtual machines that run Windows Server 2016. The virtual machines are configured as web servers.

You have an Azure load balancer named LB1 that provides load balancing services for the virtual machines.

You need to ensure that visitors are serviced by the same web server for each request. What should you configure?

- A. Floating IP (direct server return) to Disabled
- B. Session persistence to None
- C. Floating IP (direct server return) to Enabled
- D. Session persistence to Client IP

**Correct Answer: D**

With Sticky Sessions when a client starts a session on one of your web servers, session stays on that specific server. To configure An Azure Load-Balancer For Sticky Sessions set Session persistence to Client IP or to Client IP and protocol. On the following image you can see sticky session configuration:

Note:

- Client IP and protocol specifies that successive requests from the same client IP address and protocol combination will be handled by the same virtual machine.
- Client IP specifies that successive requests from the same client IP address will be handled by the same virtual machine.

Reference:

<https://cloudopszone.com/configure-azure-load-balancer-for-sticky-sessions/>

**Question #17Topic 5**

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have an Azure subscription that contains the following resources:

- A virtual network that has a subnet named Subnet1
- Two network security groups (NSGs) named NSG-VM1 and NSG-Subnet1
- A virtual machine named VM1 that has the required Windows Server configurations to allow Remote Desktop connections

NSG-Subnet1 has the default inbound security rules only.

NSG-VM1 has the default inbound security rules and the following custom inbound security rule: □ Priority: 100

- Source: Any
- Source port range: \*
- Destination: \*
- Destination port range: 3389
- Protocol: UDP
- Action: Allow

VM1 has a public IP address and is connected to Subnet1. NSG-VM1 is associated to the network interface of VM1. NSG-Subnet1 is associated to Subnet1.

You need to be able to establish Remote Desktop connections from the internet to VM1.

Solution: You add an inbound security rule to NSG-Subnet1 that allows connections from the Any source to the \*destination for port range 3389 and uses the TCP protocol. You remove NSG-VM1 from the network interface of VM1.

Does this meet the goal?

- A. Yes
- B. No

**Correct Answer: A**

The default port for RDP is TCP port 3389. A rule to permit RDP traffic must be created automatically when you create your VM.

Note on NSG-Subnet1: Azure routes network traffic between all subnets in a virtual network, by default.

Reference:

<https://docs.microsoft.com/en-us/azure/virtual-machines/troubleshooting/troubleshoot-rdp-connection>

**Question #18Topic 5**

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have an Azure subscription that contains the following resources:

- A virtual network that has a subnet named Subnet1
- Two network security groups (NSGs) named NSG-VM1 and NSG-Subnet1
- A virtual machine named VM1 that has the required Windows Server configurations to allow Remote Desktop connections

NSG-Subnet1 has the default inbound security rules only.

NSG-VM1 has the default inbound security rules and the following custom inbound security rule: □

Priority: 100

- Source: Any
- Source port range: \*
- Destination: \*
- Destination port range: 3389

▶

Protocol: UDP -



- Action: Allow

VM1 has a public IP address and is connected to Subnet1. NSG-VM1 is associated to the network interface of VM1. NSG-Subnet1 is associated to Subnet1.

You need to be able to establish Remote Desktop connections from the internet to VM1.

Solution: You add an inbound security rule to NSG-Subnet1 that allows connections from the internet source to the VirtualNetwork destination for port range 3389 and uses the UDP protocol. Does this meet the goal?

- A. Yes
- B. No

**Correct Answer: B**

The default port for RDP is TCP port 3389. A rule to permit RDP traffic must be created automatically when you create your VM.

Note on NSG-Subnet1: Azure routes network traffic between all subnets in a virtual network, by default.  
Reference: <https://docs.microsoft.com/en-us/azure/virtual-machines/troubleshooting/troubleshoot-rdp-connection> Question #19 Topic 5

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have an Azure subscription that contains the following resources:

- A virtual network that has a subnet named Subnet1
- Two network security groups (NSGs) named NSG-VM1 and NSG-Subnet1
- A virtual machine named VM1 that has the required Windows Server configurations to allow Remote Desktop connections

NSG-Subnet1 has the default inbound security rules only.

NSG-VM1 has the default inbound security rules and the following custom inbound security rule: □

Priority: 100

- Source: Any
- Source port range: \*
- Destination: \*
- Destination port range: 3389
- Protocol: UDP
- Action: Allow

VM1 has a public IP address and is connected to Subnet1. NSG-VM1 is associated to the network interface of VM1. NSG-Subnet1 is associated to Subnet1.

You need to be able to establish Remote Desktop connections from the internet to VM1.

Solution: You add an inbound security rule to NSG-Subnet1 and NSG-VM1 that allows connections from the internet source to the VirtualNetwork destination for port range 3389 and uses the TCP protocol.

Does this meet the goal?

- A. Yes
- B. No

**Correct Answer: A**

The default port for RDP is TCP port 3389. A rule to permit RDP traffic must be created automatically when you create your VM.

Note on NSG-Subnet1: Azure routes network traffic between all subnets in a virtual network, by default.  
Reference:

<https://docs.microsoft.com/en-us/azure/virtual-machines/troubleshooting/troubleshoot-rdp-connection>

**Question #20 Topic 5**

HOTSPOT -

You have a virtual network named VNet1 that has the configuration shown in the following exhibit.

```

Name          : VNet1
ResourceGroupName : Production
Location       : westus
Id            : /subscriptions/14d26092-8e42-4ea7-b770-
9dcef70fb1ea/resourceGroups/Production/providers/Microsoft.Network/virtualNetworks/VNet1
Etag          : W/"76f7edd6-d022-455b-aaee-376059318e5d"
ResourceGuid   : 562696cc-b2ba-4cc5-9619-0a735d6c34c7
ProvisioningState : Succeeded
Tags          :
AddressSpace   : {
    "AddressPrefixes": [
        "10.2.0.0/16"
    ]
}
DhcpOptions    : {}
Subnets        : [
    {
        "Name": "default",
        "Etag": "W/\\"76f7edd6-d022-455b-aaee-376059318e5d\\\"",
        "Id": "/subscriptions/14d26092-8e42-4ea7-b770-
9dcef70fb1ea/resourceGroups/Production/providers/Microsoft.Network/
virtualNetworks/VNet1/subnets/default",
        "AddressPrefix": "10.2.0.0/24",
        "IpConfigurations": [],
        "ResourceNavigationLinks": [],
        "ServiceEndpoints": [],
        "ProvisioningState": "Succeeded"
    }
]
VirtualNetworkPeerings : []
EnableDDoSProtection : false
EnableVmProtection   : false

```

Use the drop-down menus to select the answer choice that completes each statement based on the information presented in the graphic.

NOTE: Each correct selection is worth one point.

Hot Area:

## Answer Area

Before a virtual machine on VNet1 can receive an IP address from 192.168.1.0/24, you must first

<input type="checkbox"/>

Before a virtual machine on VNet1 can receive an IP address from 10.2.1.0/24, you must first

<input type="checkbox"/>

Correct

**Answer:**

## Answer Area

Before a virtual machine on VNet1 can receive an IP address from 192.168.1.0/24, you must first

add a network interface
add a subnet
add an address space
delete a subnet
delete an address space

Before a virtual machine on VNet1 can receive an IP address from 10.2.1.0/24, you must first

add a network interface
add a subnet
add an address space
delete a subnet
delete an address space

Box 1: add an address space -

Your IaaS virtual machines (VMs) and PaaS role instances in a virtual network automatically receive a private IP address from a range that you specify, based on the address space of the subnet they are connected to. We need to add the 192.168.1.0/24 address space.

Box 2: add a network interface -

The 10.2.1.0/24 network exists. We need to add a network interface.

Reference: <https://docs.microsoft.com/en-us/office365/enterprise/designing-networking-for-microsoft-azure-iaas>

Question #21Topic 5

You have an Azure subscription that contains a virtual network named VNET1. VNET1 contains the subnets shown in the following table.

Name	Connected virtual machines
Subnet1	VM1, VM2
Subnet2	VM3, VM4
Subnet3	VM5, VM6

Each virtual machine uses a static IP address.

You need to create network security groups (NSGs) to meet following requirements:

- Allow web requests from the internet to VM3, VM4, VM5, and VM6.
- Allow all connections between VM1 and VM2.
- Allow Remote Desktop connections to VM1.
- Prevent all other network traffic to VNET1.

What is the minimum number of NSGs you should create?

- A. 1
- B. 3
- C. 4

- D. 12

**Correct Answer: A**

Each network security group also contains default security rules.

Note: A network security group (NSG) contains a list of security rules that allow or deny network traffic to resources connected to Azure Virtual Networks (VNet).

NSGs can be associated to subnets, individual VMs (classic), or individual network interfaces (NIC) attached to VMs (Resource Manager).

Reference:

<https://docs.microsoft.com/en-us/azure/virtual-network/security-overview#default-security-rules>

**Question #22 Topic 5**

You have an Azure subscription that contains the resources shown in the following table.

Name	Type	Resource group
VNET1	Virtual network	RG1
VM1	Virtual machine	RG1

The Not allowed resource types Azure policy that has policy enforcement enabled is assigned to RG1 and uses the following parameters: Microsoft.Network/virtualNetworks

Microsoft.Compute/virtualMachines

In RG1, you need to create a new virtual machine named VM2, and then connect VM2 to VNET1. What should you do first?

- A. Remove Microsoft.Compute/virtualMachines from the policy.
- B. Create an Azure Resource Manager template.
- C. Add a subnet to VNET1.
- D. Remove Microsoft.Network/virtualNetworks from the policy.

**Correct Answer: A**

The Not allowed resource types Azure policy prohibits the deployment of specified resource types. You specify an array of the resource types to block.

Virtual Networks and Virtual Machines are prohibited.

Reference:

<https://docs.microsoft.com/en-us/azure/governance/policy/samples/not-allowed-resource-types>

**Question #23 Topic 5**

Your company has an Azure subscription named Subscription1.

The company also has two on-premises servers named Server1 and Server2 that run Windows Server 2016. Server1 is configured as a DNS server that has a primary DNS zone named adatum.com.

Adatum.com contains 1,000 DNS records.

You manage Server1 and Subscription1 from Server2. Server2 has the following tools installed:

- The DNS Manager console
- Azure PowerShell
- Azure CLI 2.0

You need to move the adatum.com zone to an Azure DNS zone in Subscription1. The solution must minimize administrative effort.

What should you use?

- A. Azure CLI
- B. Azure PowerShell
- C. the Azure portal
- D. the DNS Manager console

**Correct Answer:** A

Step 1: Installing the DNS migration script

Open an elevated PowerShell window (Administrative mode) and run following command install-script PrivateDnsMigrationScript

Step 2: Running the script -

Execute following command to run the script

PrivateDnsMigrationScript.ps1 - Reference:

<https://docs.microsoft.com/en-us/azure/dns/private-dns-migration-guide>

**Question #24 Topic 5**

You have a public load balancer that balances ports 80 and 443 across three virtual machines named VM1, VM2, and VM3.

You need to direct all the Remote Desktop Protocol (RDP) connections to VM3 only. What should you configure?

- A. an inbound NAT rule
- B. a new public load balancer for VM3
- C. a frontend IP configuration
- D. a load balancing rule

**Correct Answer:** A Reference: <https://docs.microsoft.com/en-us/azure/load-balancer/tutorial-load-balancer-port-forwarding-portal> <https://pixelrobots.co.uk/2017/08/azure-load-balancer-for-rds/>

**Question #25 Topic 5 HOTSPOT**

You have an Azure subscription named Subscription1 that contains the virtual networks in the following table.

Name	Subnets
VNet1	Subnet11, Subnet12
VNet2	Subnet13

Subscription1 contains the virtual machines in the following table.

Name	Subnet	Availability set
VM1	Subnet11	AS1
VM2	Subnet11	AS1
VM3	Subnet11	<i>Not applicable</i>
VM4	Subnet11	<i>Not applicable</i>
VM5	Subnet12	<i>Not applicable</i>
VM6	Subnet12	<i>Not applicable</i>

In Subscription1, you create a load balancer that has the following configurations:

- Name: LB1
- SKU: Basic
- Type: Internal
- Subnet: Subnet12 □

Virtual network: VNET1

For each of the following statements, select Yes if the statement is true. Otherwise, select No. NOTE: Each correct selection is worth one point.

Hot Area:

## Answer Area

Statements	Yes	No
LB1 can balance the traffic between VM1 and VM2.	<input type="radio"/>	<input type="radio"/>
LB1 can balance the traffic between VM3 and VM4.	<input type="radio"/>	<input type="radio"/>
LB1 can balance the traffic between VM5 and VM6.	<input type="radio"/>	<input type="radio"/>

Correct

Answer:

## Answer Area

Statements	Yes	No
LB1 can balance the traffic between VM1 and VM2.	<input checked="" type="radio"/>	<input type="radio"/>
LB1 can balance the traffic between VM3 and VM4.	<input type="radio"/>	<input checked="" type="radio"/>
LB1 can balance the traffic between VM5 and VM6.	<input type="radio"/>	<input checked="" type="radio"/>

Reference:

<https://docs.microsoft.com/en-us/azure/load-balancer/load-balancer-standard-overview>

Question #26 Topic 5 HOTSPOT -

You have an Azure virtual machine that runs Windows Server 2019 and has the following configurations:

- Name: VM1
- Location: West US
- Connected to: VNET1
- Private IP address: 10.1.0.4
- Public IP addresses: 52.186.85.63
- DNS suffix in Windows Server: Adatum.com

You create the Azure DNS zones shown in the following table.

Name	Type	Location
Adatum.pri	Private	West Europe
Contoso.pri	Private	Central US
Adatum.com	Public	West Europe
Contoso.com	Public	North Europe

You need to identify which DNS zones you can link to VNET1 and the DNS zones to which VM1 can automatically register.

Which zones should you identify? To answer, select the appropriate options in the answer area. NOTE: Each correct selection is worth one point.

Hot Area:

**Answer Area**

DNS zones that you can link to VNET1:

Adatum.com only
Adatum.pri and adatum.com only
The private zones only
The public zones only

DNS zones to which VM1 can automatically register:

Adatum.com only
Adatum.pri and adatum.com only
The private zones only
The public zones only

**Correct**

**Answer:**

## Answer Area

DNS zones that you can link to VNET1:

Adatum.com only
Adatum.pri and adatum.com only
The private zones only
The public zones only

DNS zones to which VM1 can automatically register:

Adatum.com only
Adatum.pri and adatum.com only
The private zones only
The public zones only

Reference: <https://docs.microsoft.com/en-us/azure/dns/private-dns-overview>

Question #27 Topic 5

DRAG DROP -

You have an on-premises network that you plan to connect to Azure by using a site-to-site VPN. In Azure, you have an Azure virtual network named VNet1 that uses an address space of 10.0.0.0/16. VNet1 contains a subnet named Subnet1 that uses an address space of 10.0.0.0/24.

You need to create a site-to-site VPN to Azure.

Which four actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.

NOTE: More than one order of answer choice is correct. You will receive credit for any of the correct orders you select.

Select and Place:

### Actions

Create a local gateway.

Create a VPN gateway.

Create a gateway subnet.

Create a custom DNS server.

Create a VPN connection.

Create an Azure Content Delivery Network (CDN) profile.

### Answer Area



**Correct**

Answer:

## Actions

Create a local gateway.

Create a VPN gateway.

Create a gateway subnet.

Create a custom DNS server.

Create a VPN connection.

Create an Azure Content Delivery Network (CDN) profile.

## Answer Area

Create a gateway subnet.

Create a VPN gateway.



Create a local gateway.



Create a VPN connection.



### Question #28Topic 5

You have an Azure subscription that contains the resources in the following table.

Name	Type	Details
VNet1	Virtual network	Not applicable
Subnet1	Subnet	Hosted on VNet1
VM1	Virtual machine	On Subnet1
VM2	Virtual machine	On Subnet1

VM1 and VM2 are deployed from the same template and host line-of-business applications. You configure the network security group (NSG) shown in the exhibit. (Click the Exhibit tab.)

Move   Delete   Refresh

Resource group (change) : RG1lod9053488   Custom security rules : 1 inbound, 1 outbound  
Location : East US   Associated with : 0 subnets, 0 network interfaces  
Subscription (change) : Microsoft AZ  
Subscription ID : ac344a74-f85a-4b2e-8057-642088faaf20

Tags (change) : Click here to add tags

Inbound security rules

PRIORITY	NAME	PORT	PROTOCOL	SOURCE	DESTINATION	ACTION
100	Port_80	80	TCP	Internet	Any	Deny
65000	AllowVnetInBound	Any	Any	VirtualNetwork	VirtualNetwork	Allow
65001	Allow AzureLoadBalancerInBound	Any	Any	AzureLoadBalancer	Any	Allow
65500	DenyAllInBound	Any	Any	Any	Any	Deny

Outbound security rules

PRIORITY	NAME	PORT	PROTOCOL	SOURCE	DESTINATION	ACTION
100	DenyWebSites	80	TCP	Any	Internet	Deny
65000	AllowVnetOutBound	Any	Any	VirtualNetwork	VirtualNetwork	Allow
65001	AllowInternetOutBound	Any	Any	Any	Internet	Allow
65500	DenyAllOutBound	Any	Any	Any	Any	Deny

You need to prevent users of VM1 and VM2 from accessing websites on the Internet over TCP port 80. What should you do?

- A. Disassociate the NSG from a network interface security rule.
- C. Associate the NSG to Subnet1.
- D. Change the DenyWebSites outbound security rule.

**Correct Answer: C**

You can associate or dissociate a network security group from a network interface or subnet. The NSG has the appropriate rule to block users from accessing the Internet. We just need to associate it with Subnet1.

Reference:

<https://docs.microsoft.com/en-us/azure/virtual-network/manage-network-security-group>

**Question #29Topic 5**

You have two subscriptions named Subscription1 and Subscription2. Each subscription is associated to a different Azure AD tenant.

Subscription1 contains a virtual network named VNet1. VNet1 contains an Azure virtual machine named VM1 and has an IP address space of 10.0.0.0/16.

Subscription2 contains a virtual network named VNet2. VNet2 contains an Azure virtual machine named VM2 and has an IP address space of 10.10.0.0/24.

You need to connect VNet1 to VNet2. What should you do first?

- A. Move VM1 to Subscription2.
- B. Move VNet1 to Subscription2.
- C. Modify the IP address space of VNet2.
- D. Provision virtual network gateways.

**Correct Answer: D**

The virtual networks can be in the same or different regions, and from the same or different subscriptions. When connecting VNets from different subscriptions, the subscriptions do not need to be associated with the same Active Directory tenant.

Configuring a VNet-to-VNet connection is a good way to easily connect VNets. Connecting a virtual network to another virtual network using the VNet-to-VNet connection type (VNet2VNet) is similar to creating a Site-to-Site IPsec connection to an on-premises location. Both connectivity types use a VPN gateway to provide a secure tunnel using IPsec/IKE, and both function the same way when communicating.

The local network gateway for each VNet treats the other VNet as a local site. This lets you specify additional address space for the local network gateway in order to route traffic.

Reference: <https://docs.microsoft.com/en-us/azure/vpn-gateway/vpn-gateway-howto-vnet-resource-managerportal>

**Question #30Topic 5**

You plan to create an Azure virtual machine named VM1 that will be configured as shown in the following exhibit.

## Create a virtual machine

 Changing Basic options may reset selections you have made. Review all options prior to creating the virtual machine.

[Basics](#) [Disks](#) [Networking](#) [Management](#) [Advanced](#) [Tags](#) [Review + create](#)

Create a virtual machine that runs Linux or Windows. Select an image from Azure marketplace or use your own customized image.

Complete the Basics tab then Review + create to provision a virtual machine with default parameters or review each tab for full customization.

Looking for classic VMs? [Create VM from Azure Marketplace](#)

### PROJECT DETAILS

Select the subscription to manage deployed resources and costs. Use resource groups like folders to organize and manage all your resources.

\* Subscription 

MyDev-Test Subscription 

└─ \* Resource group 

RG1 

[Create new](#)

### INSTANCE DETAILS

\* Virtual machine name 

VM1

\* Region 

(US) West US 2 

Availability options 

No infrastructure redundancy required 

\* Image 

Windows Server 2016 Datacenter 

[Browse all public and private images](#)

Azure Spot instance 

Yes  No

\* Size 

**Standard DS1 v2**

1 vcpu, 3.5 GiB memory (ZAR 632.47/month)

[Change size](#)

The planned disk configurations for VM1 are shown in the following exhibit.

Azure VMs have one operating system disk and a temporary disk for short-term storage. You can attach additional data disks. The size of the VM determines the type of storage you can use and the number of data disks allowed. [Learn more](#)

#### Disk options

\* OS disk type [?](#)

Standard HDD



The selected VM size supports premium disks. We recommend Premium SSD for high IOPS workloads. Virtual machines with Premium SSD disks qualify for the 99.9% connectivity SLA.

Enable Ultra Disk compatibility (Preview) [?](#)  Yes  No

Ultra Disks are only available when using Managed Disks.

#### Data disks

You can add and configure additional data disks for your virtual machine or attach existing disks. This VM also comes with a temporary disk.

Adding unmanaged data disks is currently not supported at the time of VM creation. You can add them after the VM is created.

#### Advanced

Use managed disks [?](#)

No  Yes

\* Storage account [?](#)

(new) rg1 disks799



Create new

You need to ensure that VM1 can be created in an Availability Zone.

Which two settings should you modify? Each correct answer presents part of the solution. NOTE: Each correct selection is worth one point.

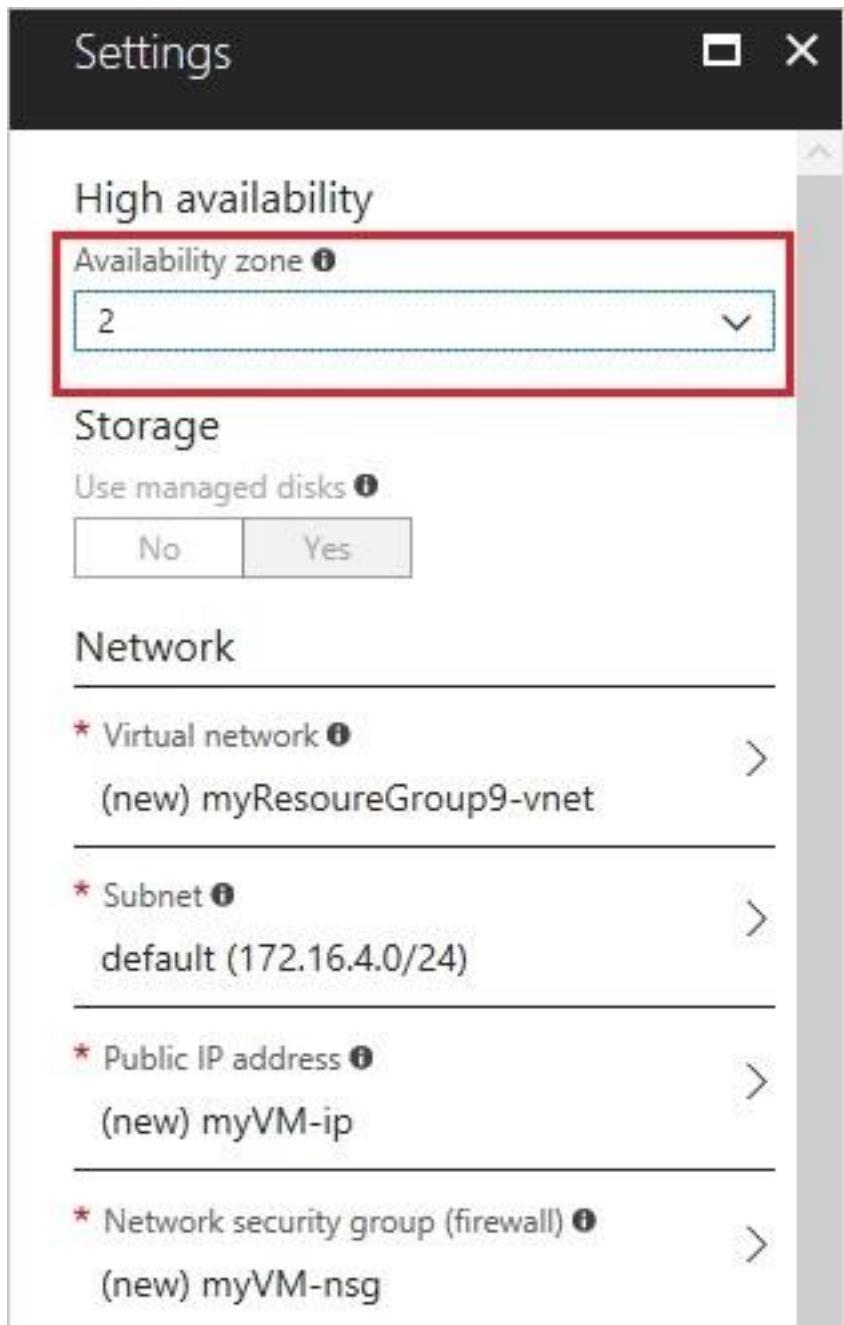
>

- A. Use managed disks
- B. OS disk type
- C. Availability options
- D. Size
- E. Image

#### Correct Answer: AC

A: Your VMs should use managed disks if you want to move them to an Availability Zone by using Site Recovery.

C: When you create a VM for an Availability Zone, Under Settings > High availability, select one of the numbered zones from the Availability zone dropdown.



Reference: <https://docs.microsoft.com/en-us/azure/site-recovery/move-azure-vms-avset-azone>  
<https://docs.microsoft.com/en-us/azure/virtual-machines/windows/create-portal-availability-zone>

A

Question #31 Topic 5

HOTSPOT -

You have an Azure subscription that contains the resources shown in the following table.

Name	Type	Resource group	Location
RG1	Resource group	Not applicable	Central US
RG2	Resource group	Not applicable	West US
RG3	Resource group	Not applicable	East US
VMSS1	Virtual machine scale set	RG1	West US

VMSS1 is set to VM (virtual machines) orchestration mode.

You need to deploy a new Azure virtual machine named VM1, and then add VM1 to VMSS1. Which resource group and location should you use to deploy VM1? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

## Answer Area

Resource group:

RG1 only
RG2 only
RG1 or RG2 only
RG1, RG2, or RG3

Location:

West US only
Central US only
Central US or West US only
East US, Central US, or West US

Correct

## Answer Area

Resource group:

RG1 only
RG2 only
RG1 or RG2 only
RG1, RG2, or RG3

Location:

West US only
Central US only
Central US or West US only
East US, Central US, or West US

Answer:

Box 1: RG1, RG2, or RG3 -

The resource group stores metadata about the resources. When you specify a location for the resource group, you're specifying where that metadata is stored.

Box 2: West US only -

Note: Virtual machine scale sets will support 2 distinct orchestration modes:

ScaleSetVM     Virtual machine instances added to the scale set are based on the scale set configuration model. The virtual machine instance lifecycle - creation, update, deletion - is managed by the scale set.  
VM (virtual machines)     Virtual machines created outside of the scale set can be explicitly added to the scaleset. Reference: <https://docs.microsoft.com/en-us/azure/azure-resource-manager/management/overview> Question #32 Topic 5 HOTSPOT -

You have an Azure subscription that contains three virtual networks named VNET1, VNET2, and VNET3.

Peering for VNET1 is configured as shown in the following exhibit.

NAME	PEERING STATUS	PEER	GATEWAY TRANSIT
Peering1	Connected	VNET2	Disabled
Peering1	Connected	VNET3	Disabled

Peering for VNET2 is configured as shown in the following exhibit.

**VNET2 | Peerings**

Virtual network

Search (Ctrl+ /)

Add Refresh

Overview Activity log Access control (IAM) Tags Diagnose and solve problems

Search peerings

NAME	PEERING STATUS	PEER	GATEWAY TRANSIT
Peering1	Connected	VNET1	Disabled ...

Peering for VNET3 is configured as shown in the following exhibit.

**VNET3 | Peerings**

Virtual network

Search (Ctrl+ /)

Add Refresh

Overview Activity log Access control (IAM) Tags Diagnose and solve problems

Search peerings

NAME	PEERING STATUS	PEER	GATEWAY TRANSIT
Peering1	Connected	VNET1	Disabled ...

How can packets be routed between the virtual networks? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

## Answer Area

Packets from VNET1 can be routed to:

▼

VNET2 only
VNET3 only
VNET2 and VNET3

Packets from VNET2 can be routed to:

▼

VNET1 only
VNET3 only
VNET1 and VNET3

Correct

**Answer:**

## Answer Area

Packets from VNET1 can be routed to:

VNET2 only
VNET3 only
<b>VNET2 and VNET3</b>

Packets from VNET2 can be routed to:

VNET1 only
VNET3 only
<b>VNET1 and VNET3</b>

Box 1. VNET2 and VNET3 -

Box 2: VNET1 -

Gateway transit is disabled.

Reference: <https://docs.microsoft.com/en-us/azure/virtual-network/virtual-network-peering-overview>

Question #33 Topic 5

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have a computer named Computer1 that has a point-to-site VPN connection to an Azure virtual network named VNet1. The point-to-site connection uses a self-signed certificate.

From Azure, you download and install the VPN client configuration package on a computer named Computer2.

You need to ensure that you can establish a point-to-site VPN connection to VNet1 from Computer2.

Solution: You modify the Azure Active Directory (Azure AD) authentication policies. Does this meet the goal?

- A. Yes
- B. No

**Correct Answer: B**

Instead export the client certificate from Computer1 and install the certificate on Computer2.

Note:

Each client computer that connects to a VNet using Point-to-Site must have a client certificate installed.

You generate a client certificate from the self-signed root certificate, and then export and install the client certificate. If the client certificate is not installed, authentication fails.

Reference:

<https://docs.microsoft.com/en-us/azure/vpn-gateway/vpn-gateway-certificates-point-to-site>

**Question #34 Topic 5**

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have a computer named Computer1 that has a point-to-site VPN connection to an Azure virtual network named VNet1. The point-to-site connection uses a self-signed certificate.

From Azure, you download and install the VPN client configuration package on a computer named Computer2.

You need to ensure that you can establish a point-to-site VPN connection to VNet1 from Computer2.

Solution: You join Computer2 to Azure Active Directory (Azure AD). Does this meet the goal?

- A. Yes
- B. No

**Correct Answer: B**

A client computer that connects to a VNet using Point-to-Site must have a client certificate installed.

Reference:

<https://docs.microsoft.com/en-us/azure/vpn-gateway/vpn-gateway-certificates-point-to-site>

**Question #35 Topic 5**

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have an Azure subscription that contains 10 virtual networks. The virtual networks are hosted in separate resource groups.

Another administrator plans to create several network security groups (NSGs) in the subscription. You need to ensure that when an NSG is created, it automatically blocks TCP port 8080 between the virtual networks.

Solution: You create a resource lock, and then you assign the lock to the subscription. Does this meet the goal?

- A. Yes
- B. No

**Correct Answer: B**

**Question #36 Topic 5**

You have an Azure subscription named Subscription1. Subscription1 contains a virtual machine named VM1.

You have a computer named Computer1 that runs Windows 10. Computer1 is connected to the Internet. You add a network interface named vm1173 to VM1 as shown in the exhibit. (Click the Exhibit tab.)

**Network Interface: vm1173**      **Effective security rules**      **Topology**  
Virtual network/subnet: RG1-vnet/default      Public IP: VM1-ip      Private IP: 10.0.0.5      Accelerated  
networking: **Disabled**

Inbound port rules	Outbound port rules	Application security groups	Load balancing			
<p>Network security group VM1-nsg (attached to network interface: vm1173 ) Impacts 0 subnets, 1 network interfaces</p> <p>Add inbound port rule</p>						
PRIORITY	NAME	PORT	PROTOCOL	SOURCE	DESTINA...	ACTION
300	⚠️ RDP	3389	TCP	Any	Any	<span style="color: green;">✓</span> Allow ...
65000	AllowVnetInBound	Any	Any	VirtualN...	VirtualN...	<span style="color: green;">✓</span> Allow ...
65001	AllowAzureLoadB...	Any	Any	AzureLo...	Any	<span style="color: green;">✓</span> Allow ...
65500	DenyAllInBound	Any	Any	Any	Any	<span style="color: red;">✗</span> Deny ...

From Computer1, you attempt to connect to VM1 by using Remote Desktop, but the connection fails. You need to establish a Remote Desktop connection to VM1. What should you do first?

- A. Change the priority of the RDP rule
- B. Attach a network interface
- C. Delete the DenyAllInBound rule
- D. Start VM1

**Correct Answer:** D Incorrect

Answers:

A: Rules are processed in priority order, with lower numbers processed before higher numbers, because lower numbers have higher priority. Once traffic matches a rule, processing stops. RDP already has the lowest number and thus the highest priority.

B: The network interface has already been added to VM.

C: The Outbound rules are fine.

Reference:

<https://docs.microsoft.com/en-us/azure/virtual-network/security-overview>

Question #37Topic 5

You have the Azure virtual machines shown in the following table.

Name	IP address	Connected to
VM1	10.1.0.4	VNET1/Subnet1
VM2	10.1.10.4	VNET1/Subnet2
VM3	172.16.0.4	VNET2/SubnetA
VM4	10.2.0.8	VNET3/SubnetB

A DNS service is installed on VM1.

You configure the DNS servers settings for each virtual network as shown in the following exhibit.

The screenshot shows the Azure portal interface for configuring DNS servers. At the top, there are 'Save' and 'Discard' buttons. Below that, under 'DNS servers', the 'Custom' option is selected. A list of IP addresses includes '10.1.0.4' and an ellipsis '...', followed by another ellipsis '...'. A button labeled 'Add DNS server' is visible.

You need to ensure that all the virtual machines can resolve DNS names by using the DNS service on VM1.

What should you do?

- A. Configure a conditional forwarder on VM1
- B. Add service endpoints on VNET1
- C. Add service endpoints on VNET2 and VNET3
- D. Configure peering between VNET1, VNET2, and VNET3

**Correct Answer: D**

Virtual network peering enables you to seamlessly connect networks in Azure Virtual Network. The virtual networks appear as one for connectivity purposes. The traffic between virtual machines uses the Microsoft backbone infrastructure.

Incorrect Answers:

B, C: Virtual Network (VNet) service endpoint provides secure and direct connectivity to Azure services over an optimized route over the Azure backbone network.

Endpoints allow you to secure your critical Azure service resources to only your virtual networks. Service Endpoints enables private IP addresses in the VNet to reach the endpoint of an Azure service without needing a public IP address on the VNet.

Reference: <https://docs.microsoft.com/en-us/azure/virtual-network/virtual-network-service-endpoints-overview> <https://docs.microsoft.com/en-us/azure/virtual-network/virtual-network-peering-overview>

Question #38 *Topic 5 HOTSPOT*

You have an Azure subscription that contains the Azure virtual machines shown in the following table.

Name	Connected to subnet
VM1	172.16.1.0/24
VM2	172.16.2.0/24

You add inbound security rules to a network security group (NSG) named NSG1 as shown in the following table.

Priority	Source	Destination	Protocol	Port	Action
100	172.16.1.0/24	172.16.2.0/24	TCP	Any	Allow
101	Any	172.16.2.0/24	TCP	Any	Deny

You run Azure Network Watcher as shown in the following exhibit.

Resource group \*

Source type \*

\* Virtual machine

Destination

Select a virtual machine  Specify manually

Resource group \*

Virtual machine \* 

Probe Settings

Protocol 

TCP  ICMP

Destination port \* 

---

Advanced settings

### Check

#### Status

 Unreachable

Agent extension version  
1.4

#### Source virtual machine

[VM1](#)

You run Network Watcher again as shown in the following exhibit.

Source type \*

Virtual machine

\* Virtual machine

VM1

Destination

Select a virtual machine  Specify manually

Resource group \*

RG1



Virtual machine \*

VM2



Probe Settings

Protocol

TCP  ICMP

**Check**

Status

Reachable

Agent extension version

1.4

Source virtual machine

VM1

Grid view

**Topology view**

Hops

NAME	IP ADDRESS	STATUS	NEXT HOP IP ADDRESS	RTT FROM SOURCE (ms)
VM1	172.16.1.4		172.16.2.4	0
VM2	172.16.2.4		-	-

For each of the following statements, select Yes if the statement is true. Otherwise, select No. NOTE:

Each correct selection is worth one point.

Hot Area:

## Answer Area

Statements	Yes	No
NSG1 limits VM1 traffic	<input type="radio"/>	<input type="radio"/>
NSG1 applies to VM2	<input type="radio"/>	<input type="radio"/>
VM1 and VM2 connect to the same virtual network	<input type="radio"/>	<input type="radio"/>

Correct

Answer:

## Answer Area

Statements	Yes	No
NSG1 limits VM1 traffic	<input type="radio"/>	<input checked="" type="radio"/>
NSG1 applies to VM2	<input checked="" type="radio"/>	<input type="radio"/>
VM1 and VM2 connect to the same virtual network	<input type="radio"/>	<input checked="" type="radio"/>

Box 1: No -

It limits traffic to VM2, but not VM1 traffic.

Box 2: Yes -

Yes, the destination is VM2.

Box 3: No - Reference: <https://docs.microsoft.com/en-us/azure/virtual-network/network-security-group-how-it-works>

Question #39 Topic 5

You have the Azure virtual network named VNet1 that contains a subnet named Subnet1. Subnet1 contains three Azure virtual machines. Each virtual machine has a public IP address.

The virtual machines host several applications that are accessible over port 443 to users on the Internet. Your on-premises network has a site-to-site VPN connection to VNet1.

You discover that the virtual machines can be accessed by using the Remote Desktop Protocol (RDP) from the Internet and from the on-premises network.

You need to prevent RDP access to the virtual machines from the Internet, unless the RDP connection is established from the on-premises network. The solution must ensure that all the applications can still be accessed by the Internet users. What should you do?

- A. Modify the address space of the local network gateway
- B. Create a deny rule in a network security group (NSG) that is linked to Subnet1
- C. Remove the public IP addresses from the virtual machines
- D. Modify the address space of Subnet1

**Correct Answer: B**

You can use a site-to-site VPN to connect your on-premises network to an Azure virtual network. Users on your on-premises network connect by using the RDP or SSH protocol over the site-to-site VPN connection. You don't have to allow direct RDP or SSH access over the internet.

Reference:

<https://docs.microsoft.com/en-us/azure/security/fundamentals/network-best-practices>

**Question #40Topic 5**

You have an Azure subscription that contains the resources in the following table.

Name	Type
ASG1	Application security group
NSG1	Network security group (NSG)
Subnet1	Subnet
VNet1	Virtual network
NIC1	Network interface
VM1	Virtual machine

Subnet1 is associated to VNet1. NIC1 attaches VM1 to Subnet1.

You need to apply ASG1 to VM1. What should you do?

- A. Associate NIC1 to ASG1
- B. Modify the properties of ASG1
- C. Modify the properties of NSG1

**Correct Answer: A**

Application Security Group can be associated with NICs.

References:

<https://docs.microsoft.com/en-us/azure/virtual-network/security-overview#application-security-groups>

**Question #41Topic 5**

You have an Azure subscription named Subscription1 that contains an Azure virtual network named VNet1. VNet1 connects to your on-premises network by using Azure ExpressRoute.

You plan to prepare the environment for automatic failover in case of ExpressRoute failure.

You need to connect VNet1 to the on-premises network by using a site-to-site VPN. The solution must minimize cost.

Which three actions should you perform? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. Create a connection
- B. Create a local site VPN gateway
- C. Create a VPN gateway that uses the VpnGw1 SKU

- D. Create a gateway subnet
- E. Create a VPN gateway that uses the Basic SKU

**Correct Answer:** ABC Reference: <https://docs.microsoft.com/en-us/azure/vpn-gateway/vpn-gateway-howto-site-to-site-resourcemanager-portal>

#### Question #42 Topic 5

HOTSPOT -

You have peering configured as shown in the following exhibit.

The screenshot shows two main sections. On the left, under 'Virtual networks', there is a list of virtual networks: test1-vnet, testVNET1, vNET1, vNET2, vNET3, vNET4, vNET5, and vNET6. vNET6 is highlighted with a blue selection bar at the bottom. On the right, under 'VNet 6 - Peering', there is a table titled 'Peering' with two entries: 'peering1' and 'peering2'. Both entries show 'Disconnected' status, 'vNET1' as the peer, and 'Enabled' as the gateway transit status. There is also a '... More' button at the top right of the peering table.

NAME	PEERING STATUS	PEER	GATEWAY TRANSIT
peering1	Disconnected	vNET1	Enabled
peering2	Disconnected	vNET2	Disabled

Use the drop-down menus to select the answer choice that completes each statement based on the information presented in the graphic.

NOTE: Each correct selection is worth one point.

Hot Area:

### Answer Area

Hosts on vNET6 can communicate with hosts on [answer choice].

vNET6 only  
vNET6 and vNET1 only  
vNET6, vNET1, and vNET2 only  
all the virtual networks in the subscription

To change the status of the peering connection to vNET1 to **Connected**, you must first [answer choice].

add a service endpoint  
add a subnet  
delete peering1  
modify the address space

**Correct**

**Answer:**

## Answer Area

Hosts on vNET6 can communicate with hosts on [answer choice].

vNET6 only
vNET6 and vNET1 only
vNET6, vNET1, and vNET2 only
all the virtual networks in the subscription

To change the status of the peering connection to vNET1 to **Connected**, you must first [answer choice].

add a service endpoint
add a subnet
<b>delete peering1</b>
modify the address space

Box 1: vNET6 only -

Peering status to both VNet1 and Vnet2 are disconnected.

Box 2: delete peering1 -

Peering to Vnet1 is Enabled but disconnected. We need to update or re-create the remote peering to get it back to Initiated state.

Reference: <https://blog.kloud.com.au/2018/10/19/address-space-maintenance-with-vnet-peering/> Question #43 Topic 5 HOTSPOT -

You have an Azure subscription that contains the resources in the following table.

Name	Type
VM1	Virtual machine
VM2	Virtual machine
LB1	Load balancer (Basic SKU)

You install the Web Server server role (IIS) on VM1 and VM2, and then add VM1 and VM2 to LB1.

LB1 is configured as shown in the LB1 exhibit. (Click the LB1 tab.)

### Essentials ^

Resource group ([change](#))

VMRG

Location

West Europe

Subscription name ([change](#))

Azure Pass

Subscription ID

e65d2b22-fde8

SKU

Basic

Backend pool

Backend1 (2 virtual machines)

Health probe

Probe1(HTTP:80/Probe1.htm)

Load balancing rule

Rule1 (TCP/80)

NAT rules

-

Public IP address

104.40.178.194 (LB1)

Rule1 is configured as shown in the Rule1 exhibit. (Click the Rule1 tab.)

\* Name

Rule1

\* IP Version

IPv4       IPv6

\* Frontend IP address  ⓘ

104.40.178.194 (LoadBalanceFrontEnd)



Protocol

TCP       UDP

\* Port

80

\* Backend port  ⓘ

80

Backend pool  ⓘ

Backend1 (2 virtual machines)



Health probe  ⓘ

Probe1 (HTTP:80/Probe1.htm)



Session persistence  ⓘ

None



Idle timeout (minutes)  ⓘ



4

Floating IP (direct server return)  ⓘ

Disabled

For each of the following statements, select Yes if the statement is true. Otherwise, select No. NOTE:  
Each correct selection is worth one point.

Hot Area:

## Answer Area

Statements	Yes	No
VM1 is in the same availability set as VM2.	<input type="radio"/>	<input type="radio"/>
If Probe1.htm is present on VM1 and VM2, LB1 will balance TCP port 80 between VM1 and VM2.	<input type="radio"/>	<input type="radio"/>
If you delete Rule1, LB1 will balance all the requests between VM1 and VM2 for all the ports.	<input type="radio"/>	<input type="radio"/>

Correct

Answer:

## Answer Area

Statements	Yes	No
VM1 is in the same availability set as VM2.	<input checked="" type="radio"/>	<input type="radio"/>
If Probe1.htm is present on VM1 and VM2, LB1 will balance TCP port 80 between VM1 and VM2.	<input checked="" type="radio"/>	<input type="radio"/>
If you delete Rule1, LB1 will balance all the requests between VM1 and VM2 for all the ports.	<input type="radio"/>	<input checked="" type="radio"/>

Box 1: Yes -

A Basic Load Balancer supports virtual machines in a single availability set or virtual machine scale set.

Box 2: Yes -

When using load-balancing rules with Azure Load Balancer, you need to specify health probes to allow Load Balancer to detect the backend endpoint status. The configuration of the health probe and probe responses determine which backend pool instances will receive new flows. You can use health probes to detect the failure of an application on a backend endpoint. You can also generate a custom response to a health probe and use the health probe for flow control to manage load or planned downtime. When a health probe fails, Load Balancer will stop sending new flows to the respective unhealthy instance. Outbound connectivity is not impacted, only inbound connectivity is impacted.

Box 3: No - Reference: <https://docs.microsoft.com/en-us/azure/load-balancer/skus>

<https://docs.microsoft.com/en-us/azure/load-balancer/load-balancer-custom-probe-overview>

Question #44 Topic 5 HOTSPOT -

You have an Azure virtual machine named VM1 that connects to a virtual network named VNet1. VM1 has the following configurations:

- Subnet: 10.0.0.0/24
- Availability set: AVSet
- Network security group (NSG): None

Private IP address: 10.0.0.4 (dynamic)

Public IP address: 40.90.219.6 (dynamic)

You deploy a standard, Internet-facing load balancer named slb1.

You need to configure slb1 to allow connectivity to VM1.

Which changes should you apply to VM1 as you configure slb1? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point. Hot

Area:

### Answer Area

Before you create a backend pool on slb1, you must:

Create and assign an NSG to VM1

Remove the public IP address from VM1

Change the private IP address of VM1 to static

Before you can connect to VM1 from slb1, you must:

Create and configure an NSG

Remove the public IP address from VM1

Change the private IP address of VM1 to static

Correct

Answer:

### Answer Area

Before you create a backend pool on slb1, you must:

Create and assign an NSG to VM1

Remove the public IP address from VM1

Change the private IP address of VM1 to static

Before you can connect to VM1 from slb1, you must:

Create and configure an NSG

Remove the public IP address from VM1

Change the private IP address of VM1 to static

Change the private IP address of VM1 to static

Box 1: Remove the public IP address from VM1

Note: A public load balancer can provide outbound connections for virtual machines (VMs) inside your virtual network. These connections are accomplished by translating their private IP addresses to public IP addresses. Public Load Balancers are used to load balance internet traffic to your VMs.

Box 2: Create and configure an NSG

NSGs are used to explicitly permit allowed traffic. If you do not have an NSG on a subnet or NIC of your virtual machine resource, traffic is not allowed to reach this resource.

Reference: <https://docs.microsoft.com/en-us/azure/load-balancer/load-balancer-overview>

Question #45 Topic 5

You have an Azure subscription that contains the resources shown in the following table.

Name	Type	Location
VNET1	Virtual network	East US
IP1	Public IP address	West Europe
RT1	Route table	North Europe

You need to create a network interface named NIC1. In which location can you create NIC1?

- A. East US and North Europe only
- B. East US only
- C. East US, West Europe, and North Europe
- D. East US and West Europe only

**Correct Answer:** *B*

Before creating a network interface, you must have an existing virtual network in the same location and subscription you create a network interface in.

Reference:

<https://docs.microsoft.com/en-us/azure/virtual-network/virtual-network-network-interface>

Question #46 *Topic 5*

You have Azure virtual machines that run Windows Server 2019 and are configured as shown in the following table.

Name	Virtual network name	DNS suffix configured in Windows Server
VM1	VNET1	Contoso.com
VM2	VNET2	Contoso.com

You create a public Azure DNS zone named adatum.com and a private Azure DNS zone named contoso.com.

For contoso.com, you create a virtual network link named link1 as shown in the exhibit. (Click the Exhibit tab.)

**link1**  
contoso.com □ X

---

Save Discard Delete Access Control (IAM) Tags

Link name  
link1

Link state  
Completed

Provisioning state  
Succeeded

Virtual network details

Virtual network id  
</subscriptions/8372f433-2dcd-4361-b5ef-5b188fed87d0/resourceGroups/RG2/provi...> Copy

Virtual network  
[VNET1](#)

Configuration  
 Enable auto registration ○

You discover that VM1 can resolve names in contoso.com but cannot resolve names in adatum.com. VM1 can resolve other hosts on the Internet.

You need to ensure that VM1 can resolve host names in adatum.com. What should you do?

- A. Update the DNS suffix on VM1 to be adatum.com
- B. Configure the name servers for adatum.com at the domain registrar
- C. Create an SRV record in the contoso.com zone
- D. Modify the Access control (IAM) settings for link1

**Correct Answer: B**

If you use Azure Provided DNS then appropriate DNS suffix will be automatically applied to your virtual machines. For all other options you must either use Fully

Qualified Domain Names (FQDN) or manually apply appropriate DNS suffix to your virtual machines.

Reference: <https://docs.microsoft.com/en-us/azure/virtual-network/virtual-networks-name-resolution-for-vms-and-role-instances>

**Question #47 Topic 5**

HOTSPOT -

You plan to use Azure Network Watcher to perform the following tasks:

- Task1: Identify a security rule that prevents a network packet from reaching an Azure virtual machine.
- Task2: Validate outbound connectivity from an Azure virtual machine to an external host. Which feature should you use for each task? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

## Answer Area

Task1:

IP flow verify
Next hop
Packet capture
Security group view
Traffic Analytics

Task2:

Connection troubleshoot
IP flow verify
Next hop
NSG flow logs
Traffic Analytics

Correct

Answer:

## Answer Area

Task1:

IP flow verify
Next hop
Packet capture
Security group view
Traffic Analytics

Task2:

Connection troubleshoot
IP flow verify
Next hop
NSG flow logs
Traffic Analytics

Box 1: IP flow verify -

At some point, a VM may become unable to communicate with other resources, because of a security rule. The IP flow verify capability enables you to specify a source and destination IPv4 address, port,

protocol (TCP or UDP), and traffic direction (inbound or outbound). IP flow verify then tests the communication and informs you if the connection succeeds or fails. If the connection fails, IP flow verify tells you which.

Box 2: Connection troubleshoot -

Diagnose outbound connections from a VM: The connection troubleshoot capability enables you to test a connection between a VM and another VM, an FQDN, a URI, or an IPv4 address. The test returns similar information returned when using the connection monitor capability, but tests the connection at a point in time, rather than monitoring it over time, as connection monitor does. Learn more about how to troubleshoot connections using connection-troubleshoot.

Reference:

<https://docs.microsoft.com/en-us/azure/network-watcher/network-watcher-monitoring-overview>

Question #48 Topic 5 HOTSPOT

You have an Azure subscription that contains the Azure virtual machines shown in the following table.

Name	Operating system	Subnet	Virtual network
VM1	Windows Server 2019	Subnet1	VNET1
VM2	Windows Server 2019	Subnet2	VNET1
VM3	Red Hat Enterprise Linux 7.7	Subnet3	VNET1

You configure the network interfaces of the virtual machines to use the settings shown in the following table.

Name	DNS server
VM1	None
VM2	192.168.10.15
VM3	192.168.10.15

From the settings of VNET1 you configure the DNS servers shown in the following exhibit.

## DNS servers

- Default (Azure-provided)
- Custom

193.77.134.10     \*\*\*

Add DNS ser     \*\*\*

The virtual machines can successfully connect to the DNS server that has an IP address of 192.168.10.15 and the DNS server that has an IP address of 193.77.134.10.

For each of the following statements, select Yes if the statement is true. Otherwise, select No. NOTE: Each correct selection is worth one point.

Hot Area:

### Answer Area

Statements	Yes	No
VM1 connects to 193.77.134.10 for DNS queries.	<input type="radio"/>	<input type="radio"/>
VM2 connects to 193.77.134.10 for DNS queries.	<input type="radio"/>	<input type="radio"/>
VM3 connects to 192.168.10.15 for DNS queries.	<input type="radio"/>	<input type="radio"/>

Correct

Answer:

### Answer Area

Statements	Yes	No
VM1 connects to 193.77.134.10 for DNS queries.	<input checked="" type="radio"/>	<input type="radio"/>
VM2 connects to 193.77.134.10 for DNS queries.	<input type="radio"/>	<input checked="" type="radio"/>
VM3 connects to 192.168.10.15 for DNS queries.	<input checked="" type="radio"/>	<input type="radio"/>

Box 1: Yes -

You can specify DNS server IP addresses in the VNet settings. The setting is applied as the default DNS server(s) for all VMs in the VNet.

Box 2: No -

You can set DNS servers per VM or cloud service to override the default network settings.

Box 3: Yes -

You can set DNS servers per VM or cloud service to override the default network settings.

Reference: <https://docs.microsoft.com/en-us/azure/virtual-network/virtual-networks-faq#name-resolution-dns> Question #49 Topic 5

HOTSPOT -

You have an Azure subscription that contains the resource groups shown in the following table.

Name	Lock name	Lock type
RG1	None	None
RG2	Lock	Delete

RG1 contains the resources shown in the following table.

Name	Type	Lock name	Lock type
storage2	Storage account	Lock1	Delete
VNET2	Virtual network	Lock2	Read-only
IP2	Public IP address	None	None

You need to identify which resources you can move from RG1 to RG2, and which resources you can move from RG2 to RG1.

Which resources should you identify? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

## Answer Area

Resources that you can move from RG1 to RG2:

None
IP1 only
IP1 and storage1 only
IP1 and VNET1 only
IP1, VNET2, and storage1

Resources that you can move from RG2 to RG1:

None
IP2 only
IP2 and storage2 only
IP2 and VNET2 only
IP2, VNET2, and storage2

**Correct**

**Answer:**

## Answer Area

Resources that you can move from RG1 to RG2:

None
IP1 only
IP1 and storage1 only
IP1 and VNET1 only
IP1, VNET2, and storage1

Resources that you can move from RG2 to RG1:

None
IP2 only
IP2 and storage2 only
IP2 and VNET2 only
IP2, VNET2, and storage2

Box 1: IP1, Storage1 -

IP addresses and storage accounts can be moved.

Virtual networks cannot be moved.

There is no lock on RG1.

Box 2: None -

There is a delete lock on RG2.

Note: When you apply a lock at a parent scope, all resources within that scope inherit the same lock.

Even resources you add later inherit the lock from the parent.

The most restrictive lock in the inheritance takes precedence.

CanNotDelete means authorized users can still read and modify a resource, but they can't delete the resource.

ReadOnly means authorized users can read a resource, but they can't delete or update the resource.  
Applying this lock is similar to restricting all authorized users to the permissions granted by the Reader role.

Reference: <https://docs.microsoft.com/en-us/azure/azure-resource-manager/management/lock-resources> <https://docs.microsoft.com/en-us/azure/azure-resource-manager/management/move-supportresources>

Question #50Topic 5

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have an Azure subscription that contains the virtual machines shown in the following table.

Name	Public IP SKU	Connected to	Status
VM1	None	VNET1/Subnet1	Stopped (deallocated)
VM2	Basic	VNET1/Subnet2	Running

You deploy a load balancer that has the following configurations:

- Name: LB1
- Type: Internal
- SKU: Standard

Virtual network: VNET1

You need to ensure that you can add VM1 and VM2 to the backend pool of LB1.

Solution: You create a Basic SKU public IP address, associate the address to the network interface of VM1, and then start VM1. Does this meet the goal?

- A. Yes
- B. No

**Correct Answer: B**

A Backend Pool configured by IP address has the following limitations:

- Standard load balancer only Reference:

<https://docs.microsoft.com/en-us/azure/load-balancer/backend-pool-management>

#### Question #51Topic 5

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have an Azure subscription that contains the virtual machines shown in the following table.

Name	Public IP SKU	Connected to	Status
VM1	None	VNET1/Subnet1	Stopped (deallocated)
VM2	Basic	VNET1/Subnet2	Running

You deploy a load balancer that has the following configurations:

- Name: LB1
- Type: Internal
- SKU: Standard

Virtual network: VNET1

You need to ensure that you can add VM1 and VM2 to the backend pool of LB1.

Solution: You create a Standard SKU public IP address, associate the address to the network interface of VM1, and then stop VM2. Does this meet the goal?

- A. Yes
- B. No

**Correct Answer: B**

A Backend Pool configured by IP address has the following limitations:

⇒ Standard load balancer only Reference:

<https://docs.microsoft.com/en-us/azure/load-balancer/backend-pool-management>

#### Question #52 Topic 5

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have an Azure subscription that contains the virtual machines shown in the following table.

Name	Public IP SKU	Connected to	Status
VM1	None	VNET1/Subnet1	Stopped (deallocated)
VM2	Basic	VNET1/Subnet2	Running

You deploy a load balancer that has the following configurations:

⇒ Name: LB1

⇒ Type: Internal

⇒ SKU: Standard ⇒

Virtual network: VNET1

You need to ensure that you can add VM1 and VM2 to the backend pool of LB1.

Solution: You create two Standard SKU public IP addresses and associate a Standard SKU public IP address to the network interface of each virtual machine. Does this meet the goal?

- A. Yes
- B. No

#### Correct Answer: A

A Backend Pool configured by IP address has the following limitations:

⇒ Standard load balancer only Reference:

<https://docs.microsoft.com/en-us/azure/load-balancer/backend-pool-management>

#### Question #53 Topic 5

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have a computer named Computer1 that has a point-to-site VPN connection to an Azure virtual network named VNet1. The point-to-site connection uses a self-signed certificate.

From Azure, you download and install the VPN client configuration package on a computer named Computer2.

You need to ensure that you can establish a point-to-site VPN connection to VNet1 from Computer2.

Solution: You export the client certificate from Computer1 and install the certificate on Computer2. Does this meet the goal?

- A. Yes
- B. No

**Correct Answer:** A

Each client computer that connects to a VNet using Point-to-Site must have a client certificate installed. You generate a client certificate from the self-signed root certificate, and then export and install the client certificate. If the client certificate is not installed, authentication fails.

Reference:

<https://docs.microsoft.com/en-us/azure/vpn-gateway/vpn-gateway-certificates-point-to-site>

**Question #54 Topic 5**

You have an Azure virtual machine named VM1.

The network interface for VM1 is configured as shown in the exhibit. (Click the Exhibit tab.)

PRIORITY	NAME	PORT	PROTOCOL	SOURCE	DESTINATION	ACTION
300	RDP	3389	TCP	Any	Any	Allow
400	Rule1	80	TCP	Any	Any	Deny
500	Rule2	80,443	TCP	Any	Any	Deny
1000	Rule4	50-100,400-500	UDP	Any	Any	Allow
2000	Rule5	50-5000	Any	Any	VirtualNetwork	Deny
3000	Rule6	150-300	Any	Any	Any	Allow
4000	Rule3	60-500	Any	Any	VirtualNetwork	Allow
65000	AllowVnetInBound	Any	Any	VirtualNetwork	VirtualNetwork	Allow
65001	AllowAzureLoadBalancerInBo...	Any	Any	AzureLoadBal...	Any	Allow
65500	DenyAllInBound	Any	Any	Any	Any	Deny

You deploy a web server on VM1, and then create a secure website that is accessible by using the HTTPS protocol. VM1 is used as a web server only.

You need to ensure that users can connect to the website from the Internet. What should you do?

- A. Modify the protocol of Rule4
- B. Delete Rule1
- C. For Rule5, change the Action to Allow and change the priority to 401
- D. Create a new inbound rule that allows TCP protocol 443 and configure the rule to have a priority of 501.

**Correct Answer: C**

HTTPS uses port 443.

Rule2, with priority 500, denies HTTPS traffic.

Rule5, with priority changed from 2000 to 401, would allow HTTPS traffic.

Note: Priority is a number between 100 and 4096. Rules are processed in priority order, with lower numbers processed before higher numbers, because lower numbers have higher priority. Once traffic matches a rule, processing stops. As a result, any rules that exist with lower priorities (higher numbers) that have the same attributes as rules with higher priorities are not processed.

Note:

There are several versions of this question in the exam. The question has two possible correct answers:

1. Change the priority of Rule3 to 450.

2. For Rule5, change the Action to Allow and change the priority to 401.

Other incorrect answer options you may see on the exam include the following:

Modify the action of Rule1.

Change the priority of Rule6 to 100.

For Rule4, change the protocol from UDP to Any.

Reference:

<https://docs.microsoft.com/en-us/azure/virtual-network/network-security-groups-overview>

**Question #55 Topic 5**

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have an Azure subscription that contains 10 virtual networks. The virtual networks are hosted in separate resource groups.

Another administrator plans to create several network security groups (NSGs) in the subscription. You need to ensure that when an NSG is created, it automatically blocks TCP port 8080 between the virtual networks.

Solution: From the Resource providers blade, you unregister the Microsoft.ClassicNetwork provider. Does this meet the goal?

- A. Yes
- B. No

**Correct Answer: B**

You should use a policy definition.

Resource policy definition used by Azure Policy enables you to establish conventions for resources in your organization by describing when the policy is enforced and what effect to take. By defining conventions, you can control costs and more easily manage your resources.

Reference:

<https://docs.microsoft.com/en-us/azure/azure-policy/policy-definition>

**Question #56 Topic 5**

HOTSPOT -

You manage two Azure subscriptions named Subscription1 and Subscription2. Subscription1 has following virtual networks:

Name	Address space	Location
VNET1	10.10.10.0/24	West Europe
VNET2	172.16.0.0/16	West US

The virtual networks contain the following subnets:

Name	Address space	In virtual network
Subnet11	10.10.10.0/24	VNET1
Subnet21	172.16.0.0/18	VNET2
Subnet22	172.16.128.0/18	VNET2

Subscription2 contains the following virtual network:

- Name: VNETA
- Address space: 10.10.128.0/17
- Location: Canada Central

VNETA contains the following subnets:

Name	Address space
SubnetA1	10.10.130.0/24
SubnetA2	10.10.131.0/24

For each of the following statements, select Yes if the statement is true. Otherwise, select No. NOTE: Each correct selection is worth one point.

Hot Area:

### Answer Area

Statements	Yes	No
A Site-to-Site connection can be established between VNET1 and VNET2.	<input type="radio"/>	<input type="radio"/>
VNET1 and VNETA can be peered.	<input type="radio"/>	<input type="radio"/>
VNET1 and VNET2 can be peered.	<input type="radio"/>	<input type="radio"/>

Correct

Answer:

## Answer Area

Statements	Yes	No
A Site-to-Site connection can be established between VNET1 and VNET2.	<input checked="" type="radio"/>	<input type="radio"/>
VNET1 and VNET2 can be peered.	<input checked="" type="radio"/>	<input type="radio"/>
VNET1 and VNETA can be peered.	<input type="radio"/>	<input checked="" type="radio"/>

Box 1: Yes -

With VNet-to-VNet you can connect Virtual Networks in Azure across different regions.

Box 2: Yes -

Azure supports the following types of peering:

Virtual network peering: Connect virtual networks within the same Azure region.

Global virtual network peering: Connecting virtual networks across Azure regions.

Box 3: No -

The virtual networks you peer must have non-overlapping IP address spaces.

Reference: <https://azure.microsoft.com/en-us/blog/vnet-to-vnet-connecting-virtual-networks-in-azure-across-different-regions/> <https://docs.microsoft.com/en-us/azure/virtual-network/virtual-network-manage-peering#requirements-and-constraints>

Question #57 Topic 5

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have an app named App1 that is installed on two Azure virtual machines named VM1 and VM2. Connections to App1 are managed by using an Azure Load Balancer.

The effective network security configurations for VM2 are shown in the following exhibit.

Priority	Name	Port	Protocol	Source	Destination	Action
100	Allow_131.107.100.50	443	TCP	131.107.100.50	VirtualNetwork	<input checked="" type="checkbox"/> Allow
200	BlockAllOther443	443	Any	Any	Any	<input checked="" type="checkbox"/> Deny
65000	AllowVnetInBound	Any	Any	VirtualNetwork	VirtualNetwork	<input checked="" type="checkbox"/> Allow
65001	AllowAzureLoadBalancerInBound	Any	Any	AzureLoadBalancer	Any	<input checked="" type="checkbox"/> Allow
65500	DenyAllInBound	Any	Any	Any	Any	<input checked="" type="checkbox"/> Deny

You discover that connections to App1 from 131.107.100.50 over TCP port 443 fail.

You verify that the Load Balancer rules are configured correctly.

You need to ensure that connections to App1 can be established successfully from 131.107.100.50 over TCP port 443.

Solution: You create an inbound security rule that denies all traffic from the 131.107.100.50 source and has a cost of 64999. Does this meet the goal?

- A. Yes
- B. No

**Correct Answer: B**

Reference:

<https://fastreroute.com/azure-network-security-groups-explained/>

**Question #58Topic 5**

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have an app named App1 that is installed on two Azure virtual machines named VM1 and VM2.

Connections to App1 are managed by using an Azure Load Balancer.

The effective network security configurations for VM2 are shown in the following exhibit.

Priority	Name	Port	Protocol	Source	Destination	Action
100	Allow_131.107.100.50	443	TCP	131.107.100.50	VirtualNetwork	<span style="color: green;">Allow</span>
200	BlockAllOther443	443	Any	Any	Any	<span style="color: red;">Deny</span>
65000	AllowVnetInBound	Any	Any	VirtualNetwork	VirtualNetwork	<span style="color: green;">Allow</span>
65001	AllowAzureLoadBalancerInBound	Any	Any	AzureLoadBalancer	Any	<span style="color: green;">Allow</span>
65500	DenyAllInBound	Any	Any	Any	Any	<span style="color: red;">Deny</span>

You discover that connections to App1 from 131.107.100.50 over TCP port 443 fail.

You verify that the Load Balancer rules are configured correctly.

You need to ensure that connections to App1 can be established successfully from 131.107.100.50 over TCP port 443.

Solution: You delete the BlockAllOther443 inbound security rule. Does this meet the goal?

- A. Yes
- B. No

**Correct Answer: B**

Reference:

<https://fastreroute.com/azure-network-security-groups-explained/>

**Question #59Topic 5**

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have an app named App1 that is installed on two Azure virtual machines named VM1 and VM2.

Connections to App1 are managed by using an Azure Load Balancer.

The effective network security configurations for VM2 are shown in the following exhibit.

Priority	Name	Port	Protocol	Source	Destination	Action
100	Allow_131.107.100.50	443	TCP	131.107.100.50	VirtualNetwork	<span style="color: green;">Allow</span>
200	BlockAllOther443	443	Any	Any	Any	<span style="color: red;">Deny</span>
65000	AllowVnetInBound	Any	Any	VirtualNetwork	VirtualNetwork	<span style="color: green;">Allow</span>
65001	AllowAzureLoadBalancerInBound	Any	Any	AzureLoadBalancer	Any	<span style="color: green;">Allow</span>
65500	DenyAllInBound	Any	Any	Any	Any	<span style="color: red;">Deny</span>

You discover that connections to App1 from 131.107.100.50 over TCP port 443 fail.

You verify that the Load Balancer rules are configured correctly.

You need to ensure that connections to App1 can be established successfully from 131.107.100.50 over TCP port 443.

Solution: You modify the priority of the Allow\_131.107.100.50 inbound security rule. Does this meet the goal?

- A. Yes
- B. No

**Correct Answer: B**

The rule currently has the highest priority.

Reference:

<https://fastreroute.com/azure-network-security-groups-explained/>

**Question #60Topic 5**

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have an Azure subscription that contains 10 virtual networks. The virtual networks are hosted in separate resource groups.

Another administrator plans to create several network security groups (NSGs) in the subscription. You need to ensure that when an NSG is created, it automatically blocks TCP port 8080 between the virtual networks.

Solution: You assign a built-in policy definition to the subscription. Does this meet the goal?

- A. Yes
- B. No

**Correct Answer: B**

Resource policy definition used by Azure Policy enables you to establish conventions for resources in your organization by describing when the policy is enforced and what effect to take. By defining conventions, you can control costs and more easily manage your resources.

Reference:

<https://docs.microsoft.com/en-us/azure/azure-policy/policy-definition>

**Question #61 Topic 5**

You have an Azure subscription.

You plan to deploy an Azure Kubernetes Service (AKS) cluster to support an app named App1. On-premises clients connect to App1 by using the IP address of the pod.

For the AKS cluster, you need to choose a network type that will support App1. What should you choose?

- A. kubenet
- B. Azure Container Networking Interface (CNI)
- C. Hybrid Connection endpoints
- D. Azure Private Link

**Correct Answer: B**

With Azure CNI, every pod gets an IP address from the subnet and can be accessed directly. These IP addresses must be unique across your network space.

Incorrect Answers:

A: The kubenet networking option is the default configuration for AKS cluster creation. With kubenet, nodes get an IP address from the Azure virtual network subnet. Pods receive an IP address from a logically different address space to the Azure virtual network subnet of the nodes. Network address translation (NAT) is then configured so that the pods can reach resources on the Azure virtual network. C, D: AKS only supports Kubenet networking and Azure Container Networking Interface (CNI) networking Reference:

<https://docs.microsoft.com/en-us/azure/aks/concepts-network>

**Question #62 Topic 5**

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have an Azure subscription that contains the virtual machines shown in the following table.

Name	Public IP SKU	Connected to	Status
VM1	None	VNET1/Subnet1	Stopped (deallocated)
VM2	Basic	VNET1/Subnet2	Running

You deploy a load balancer that has the following configurations:

- Name: LB1
- Type: Internal
- SKU: Standard □

Virtual network: VNET1

You need to ensure that you can add VM1 and VM2 to the backend pool of LB1.

Solution: You disassociate the public IP address from the network interface of VM2.

Does this meet the goal?

- A. Yes
- B. No

**Correct Answer:** A

#### Question #63Topic 5

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have an Azure subscription that contains 10 virtual networks. The virtual networks are hosted in separate resource groups.

Another administrator plans to create several network security groups (NSGs) in the subscription. You need to ensure that when an NSG is created, it automatically blocks TCP port 8080 between the virtual networks.

Solution: You configure a custom policy definition, and then you assign the policy to the subscription.

Does this meet the goal?

- A. Yes
- B. No

**Correct Answer:** A

Resource policy definition used by Azure Policy enables you to establish conventions for resources in your organization by describing when the policy is enforced and what effect to take. By defining conventions, you can control costs and more easily manage your resources.

Reference:

<https://docs.microsoft.com/en-us/azure/azure-policy/policy-definition>

#### Question #64Topic 5

You have two Azure virtual networks named VNet1 and VNet2. VNet1 contains an Azure virtual machine named VM1. VNet2 contains an Azure virtual machine named VM2.

VM1 hosts a frontend application that connects to VM2 to retrieve data.

Users report that the frontend application is slower than usual.

You need to view the average round-trip time (RTT) of the packets from VM1 to VM2. Which Azure Network Watcher feature should you use?

- A. IP flow verify
- B. Connection troubleshoot
- C. Connection monitor
- D. NSG flow logs

**Correct Answer: C**

The connection monitor capability monitors communication at a regular interval and informs you of reachability, latency, and network topology changes between the VM and the endpoint

Incorrect Answers:

A: The IP flow verify capability enables you to specify a source and destination IPv4 address, port, protocol (TCP or UDP), and traffic direction (inbound or outbound). IP flow verify then tests the communication and informs you if the connection succeeds or fails. If the connection fails, IP flow verify tells you which security rule allowed or denied the communication, so that you can resolve the problem. B: The connection troubleshoot capability enables you to test a connection between a VM and another VM, an FQDN, a URI, or an IPv4 address. The test returns similar information returned when using the connection monitor capability, but tests the connection at a point in time, rather than monitoring it over time, as connection monitor does.

D: The NSG flow log capability allows you to log the source and destination IP address, port, protocol, and whether traffic was allowed or denied by an NSG.

Reference:

<https://docs.microsoft.com/en-us/azure/network-watcher/network-watcher-monitoring-overview>

Question #65 Topic 5

HOTSPOT -

You have an Azure subscription that contains the public load balancers shown in the following table.

Name	SKU
LB1	Basic
LB2	Standard

You plan to create six virtual machines and to load balance requests to the virtual machines. Each load balancer will load balance three virtual machines.

You need to create the virtual machines for the planned solution.

How should you create the virtual machines? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

### Answer Area

The virtual machines that will be load balanced by using LB1 must:

be connected to the same virtual network
be created in the same resource group
be created in the same availability set or virtual machine scale set
run the same operating system

The virtual machines that will be load balanced by using LB2 must:

be connected to the same virtual network
be created in the same resource group
be created in the same availability set or virtual machine scale set
run the same operating system

Correct

Answer:

### Answer Area

The virtual machines that will be load balanced by using LB1 must:

be connected to the same virtual network
be created in the same resource group
be created in the same availability set or virtual machine scale set
run the same operating system

The virtual machines that will be load balanced by using LB2 must:

be connected to the same virtual network
be created in the same resource group
be created in the same availability set or virtual machine scale set
run the same operating system

Box 1: be created in the same availability set or virtual machine scale set.

The Basic tier is quite restrictive. A load balancer is restricted to a single availability set, virtual machine scale set, or a single machine.

Box 2: be connected to the same virtual network

The Standard tier can span any virtual machine in a single virtual network, including blends of scale sets, availability sets, and machines.

Reference: <https://www.petri.com/comparing-basic-standard-azure-load-balancers>

Question #66Topic 5

HOTSPOT -

You have an on-premises data center and an Azure subscription. The data center contains two VPN devices. The subscription contains an Azure virtual network named VNet1. VNet1 contains a gateway subnet.

You need to create a site-to-site VPN. The solution must ensure that if a single instance of an Azure VPN gateway fails, or a single on-premises VPN device fails, the failure will not cause an interruption that is longer than two minutes.

What is the minimum number of public IP addresses, virtual network gateways, and local network gateways required in Azure? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

## Answer Area

Public IP addresses:

1
2
3
4

Virtual network gateways:

1
2
3
4

Local network gateways:

1
2
3
4

Correct

Answer:

## Answer Area

Public IP addresses:

1
2
3
4

Virtual network gateways:

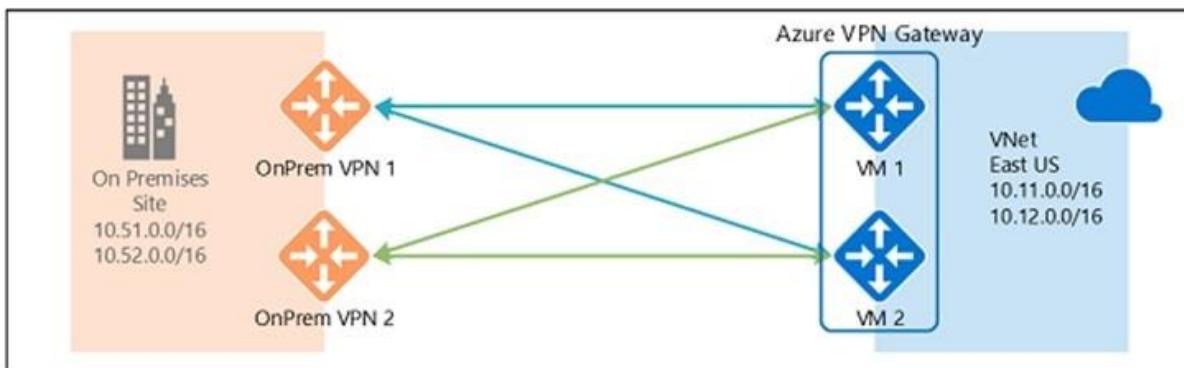
1
2
3
4

Local network gateways:

1
2
3
4

Box 1: 4 -

Two public IP addresses in the on-premises data center, and two public IP addresses in the VNET. The most reliable option is to combine the active-active gateways on both your network and Azure, as shown in the diagram below.



Box 2: 2 -

Every Azure VPN gateway consists of two instances in an active-standby configuration. For any planned maintenance or unplanned disruption that happens to the active instance, the standby instance would take over (failover) automatically, and resume the S2S VPN or VNet-to-VNet connections.

Box 3: 2 -

Dual-redundancy: active-active VPN gateways for both Azure and on-premises networks Reference:  
<https://docs.microsoft.com/en-us/azure/vpn-gateway/vpn-gateway-highlyavailable>

Question #67Topic 5

You have an Azure subscription that contains two virtual machines as shown in the following table.

Name	Operating system	Location	IP address	DNS server
VM1	Windows Server 2019	West Europe	10.0.0.4	Default (Azure-provided)
VM2	Windows Server 2019	West Europe	10.0.0.5	Default (Azure-provided)

You perform a reverse DNS lookup for 10.0.0.4 from VM2. Which FQDN will be returned?

- A. vm1.core.windows.net
- B. vm1.azure.com
- C. vm1.westeurope.cloudapp.azure.com
- D. vm1.internal.cloudapp.net

**Correct Answer: D**

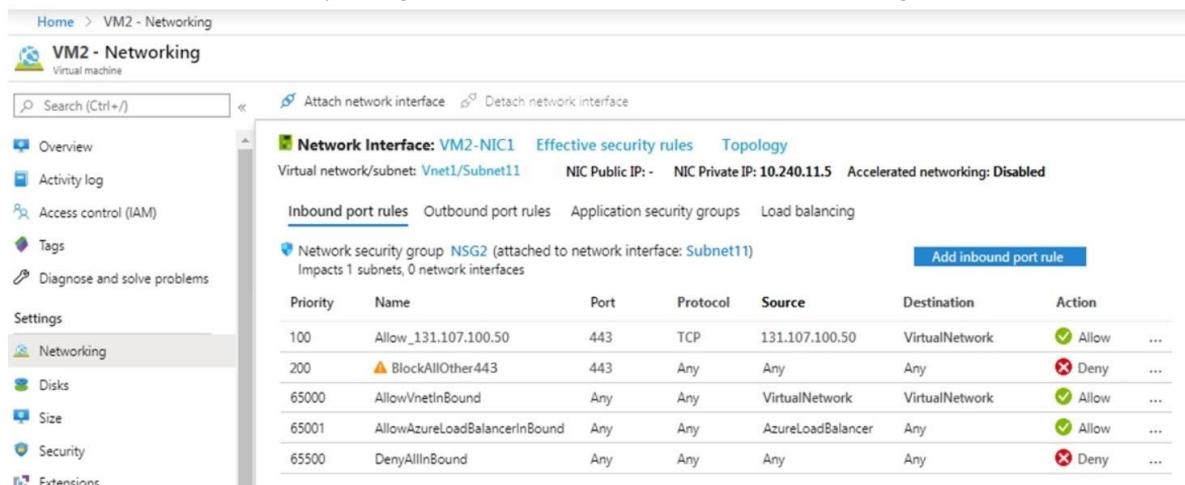
Question #68Topic 5

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have an app named App1 that is installed on two Azure virtual machines named VM1 and VM2. Connections to App1 are managed by using an Azure Load Balancer.

The effective network security configurations for VM2 are shown in the following exhibit.



Priority	Name	Port	Protocol	Source	Destination	Action
100	Allow_131.107.100.50	443	TCP	131.107.100.50	VirtualNetwork	Allow
200	BlockAllOther443	443	Any	Any	Any	Deny
65000	AllowVnetInBound	Any	Any	VirtualNetwork	VirtualNetwork	Allow
65001	AllowAzureLoadBalancerInBound	Any	Any	AzureLoadBalancer	Any	Allow
65500	DenyAllInBound	Any	Any	Any	Any	Deny

You discover that connections to App1 from 131.107.100.50 over TCP port 443 fail.

You verify that the Load Balancer rules are configured correctly.

You need to ensure that connections to App1 can be established successfully from 131.107.100.50 over TCP port 443.

Solution: You create an inbound security rule that allows any traffic from the AzureLoadBalancer source and has a cost of 150. Does this meet the goal?

- A. Yes
- B. No

**Correct Answer:** B Reference:

<https://docs.microsoft.com/en-us/azure/virtual-network/network-security-groups-overview>

Question #69 *Topic 5*

You have an Azure subscription that contains a policy-based virtual network gateway named GW1 and a virtual network named VNet1.

You need to ensure that you can configure a point-to-site connection from an on-premises computer to VNet1.

Which two actions should you perform? Each correct answer presents part of the solution. NOTE:

Each correct selection is worth one point.

- A. Add a service endpoint to VNet1
- B. Reset GW1
- C. Create a route-based virtual network gateway
- D. Add a connection to GW1
- E. Delete GW1
- F. Add a public IP address space to VNet1

**Correct Answer:** CE

C: A VPN gateway is used when creating a VPN connection to your on-premises network.

Route-based VPN devices use any-to-any (wildcard) traffic selectors, and let routing/forwarding tables direct traffic to different IPsec tunnels. It is typically built on router platforms where each IPsec tunnel is modeled as a network interface or VTI (virtual tunnel interface).

E: Policy-based VPN devices use the combinations of prefixes from both networks to define how traffic is encrypted/decrypted through IPsec tunnels. It is typically built on firewall devices that perform packet filtering. IPsec tunnel encryption and decryption are added to the packet filtering and processing engine.

Incorrect Answers:

F: Point-to-Site connections do not require a VPN device or a public-facing IP address.

Reference:

<https://docs.microsoft.com/en-us/azure/vpn-gateway/create-routebased-vpn-gateway-portal>

<https://docs.microsoft.com/en-us/azure/vpn-gateway/vpn-gateway-connect-multiple-policybased-rm-ps>

Question #70 *Topic 5 HOTSPOT*

- You have an Azure subscription that contains the resources in the following table:

Name	Type
VMRG	Resource group
VNet1	Virtual network
VNet2	Virtual network
VM5	Virtual machine connected to VNet1
VM6	Virtual machine connected to VNet2

In Azure, you create a private DNS zone named adatum.com. You set the registration virtual network to VNet2. The adatum.com zone is configured as shown in the following exhibit:

Resource group ([change](#))  
vmrg

Subscription ([change](#))  
Azure Pass

Subscription ID  
a4fde29b-d56a-4f6c-8298-6c53cd0b720c

Tags ([change](#))  
[Click here to add tags](#)

---

Search record sets

Name	Type	TTL	VALUE
@	SOA	3600	Email: azuredns-hostmaster.microsoft.com Host: internal.cloudapp.net Refresh: 3600 Retry: 300 Expire: 2419200 Minimum TTL: 300 Serial number: 1
vm1	A	3600	10.1.0.4
vm9	A	3600	10.1.0.12

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point.

Hot Area:

## Answer Area

Statements	Yes	No
The A record for VM5 will be registered automatically in the adatum.com zone.	<input type="radio"/>	<input type="radio"/>
VM5 can resolve VM9.adatum.com.	<input type="radio"/>	<input type="radio"/>
VM6 can resolve VM9.adatum.com.	<input type="radio"/>	<input type="radio"/>

Correct

Answer:

## Answer Area

Statements	Yes	No
The A record for VM5 will be registered automatically in the adatum.com zone.	<input type="radio"/>	<input checked="" type="radio"/>
VM5 can resolve VM9.adatum.com.	<input type="radio"/>	<input checked="" type="radio"/>
VM6 can resolve VM9.adatum.com.	<input checked="" type="radio"/>	<input type="radio"/>

Box 1: No -

Azure DNS provides automatic registration of virtual machines from a single virtual network that's linked to a private zone as a registration virtual network. VM5 does not belong to the registration virtual network though.

Box 2: No -

Forward DNS resolution is supported across virtual networks that are linked to the private zone as resolution virtual networks. VM5 does belong to a resolution virtual network.

Box 3: Yes -

VM6 belongs to registration virtual network, and an A (Host) record exists for VM9 in the DNS zone. By default, registration virtual networks also act as resolution virtual networks, in the sense that DNS resolution against the zone works from any of the virtual machines within the registration virtual network. Reference: <https://docs.microsoft.com/en-us/azure/dns/private-dns-overview>

Question #71Topic 5

HOTSPOT -

You have an Azure subscription that contains the virtual networks shown in the following table.

Name	Location
VNET1	West US
VNET2	West US
VNET3	East US

The subscription contains the private DNS zones shown in the following table.

Name	Location
Zone1.com	West US
Zone2.com	West US
Zone3.com	East US

You add virtual network links to the private DNS zones as shown in the following table.

Name	Private DNS zone	Virtual network	Enable auto registration
Link1	Zone1.com	VNET1	Yes
Link2	Zone2.com	VNET2	No
Link3	Zone3.com	VNET3	No

For each of the following statements, select Yes if the statement is true. Otherwise, select No. NOTE:

Each correct selection is worth one point.

Hot Area:

### Answer Area

Statements	Yes	No
You can enable auto registration for Link2.	<input type="radio"/>	<input type="radio"/>
You can add a virtual network link for VNET1 to Zone3.com.	<input type="radio"/>	<input type="radio"/>
You can add a virtual network link for VNET2 to Zone1.com and enable auto registration.	<input type="radio"/>	<input type="radio"/>

Correct

Answer:

## Answer Area

Statements	Yes	No
You can enable auto registration for Link2.	<input type="radio"/>	<input checked="" type="radio"/>
You can add a virtual network link for VNET1 to Zone3.com.	<input type="radio"/>	<input checked="" type="radio"/>
You can add a virtual network link for VNET2 to Zone1.com and enable auto registration.	<input type="radio"/>	<input checked="" type="radio"/>

Reference:

<https://docs.microsoft.com/en-us/azure/dns/private-dns-virtual-network-links>

<https://docs.microsoft.com/en-us/azure/dns/private-dns-autoregistration>

Question #72 Topic 5

HOTSPOT -

You have an Azure subscription.

You plan to use an Azure Resource Manager template to deploy a virtual network named VNET1 that will use Azure Bastion.

How should you complete the template? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

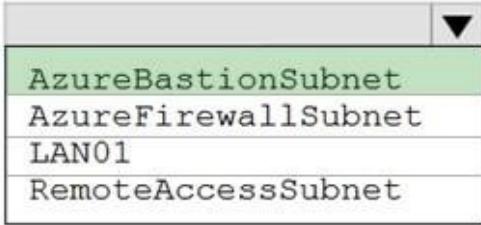
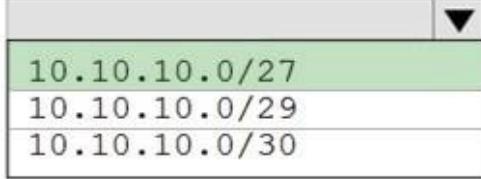
## Answer Area

```
{  
  "type": "Microsoft.Network/virtualNetworks",  
  "name": "VNET1"  
  "apiVersion": "2019-02-01",  
  "location": "[resourceGroup().location]",  
  "properties": {  
    "addressSpace": {  
      "addressPrefixes": ["10.10.10.0/24"]  
    },  
    "subnets": [  
      {  
        "name": : ▼  
        "AzureBastionSubnet  
        AzureFirewallSubnet  
        LAN01  
        RemoteAccessSubnet  
      },  
      {  
        "properties": {  
          "addressPrefix": : ▼  
          10.10.10.0/27  
          10.10.10.0/29  
          10.10.10.0/30  
        }  
      },  
      {  
        "name": "LAN02",  
        "properties": {  
          "addressPrefix": "10.10.10.128/25"  
        }  
      }  
    ]  
  }  
}
```

Correct

Answer:

## Answer Area

```
{  
  "type": "Microsoft.Network/virtualNetworks",  
  "name": "VNET1"  
  "apiVersion": "2019-02-01",  
  "location": "[resourceGroup().location]",  
  "properties": {  
    "addressSpace": {  
      "addressPrefixes": ["10.10.10.0/24"]  
    },  
    "subnets": [  
      {  
        "name": :   
          "AzureBastionSubnet",  
          "AzureFirewallSubnet",  
          "LAN01",  
          "RemoteAccessSubnet"  
        "properties": {  
          "addressPrefix": :   
            "10.10.10.0/27",  
            "10.10.10.0/29",  
            "10.10.10.0/30"  
          }  
        }  
      },  
      {  
        "name": "LAN02",  
        "properties": {  
          "addressPrefix": "10.10.10.128/25"  
        }  
      }  
    ]  
  }  
}
```

Reference: <https://medium.com/charot/deploy-azure-bastion-preview-using-an-arm-template-15e3010767d6> Question #73 Topic 5

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You manage a virtual network named VNet1 that is hosted in the West US Azure region.

VNet1 hosts two virtual machines named VM1 and VM2 that run Windows Server.

You need to inspect all the network traffic from VM1 to VM2 for a period of three hours.

Solution: From Azure Network Watcher, you create a packet capture. Does this meet the goal?

- A. Yes
- B. No

**Correct Answer: A**

Network Watcher variable packet capture allows you to create packet capture sessions to track traffic to and from a virtual machine. Packet capture helps to diagnose network anomalies both reactively and proactively. Other uses include gathering network statistics, gaining information on network intrusions, to debug client-server communications and much more.

Reference:

<https://docs.microsoft.com/en-us/azure/network-watcher/network-watcher-packet-capture-overview>

**Question #74 Topic 5**

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You manage a virtual network named VNet1 that is hosted in the West US Azure region.

VNet1 hosts two virtual machines named VM1 and VM2 that run Windows Server.

You need to inspect all the network traffic from VM1 to VM2 for a period of three hours.

Solution: From Azure Network Watcher, you create a connection monitor. Does this meet the goal?

- A. Yes
- B. No

**Correct Answer: B** Reference: <https://azure.microsoft.com/en-us/updates/general-availability-azure-network-watcher-connectionmonitor-in-all-public-regions/>

**Question #75 Topic 5**

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You manage a virtual network named VNet1 that is hosted in the West US Azure region.

VNet1 hosts two virtual machines named VM1 and VM2 that run Windows Server.

You need to inspect all the network traffic from VM1 to VM2 for a period of three hours.

Solution: From Performance Monitor, you create a Data Collector Set (DCS). Does this meet the goal?

- A. Yes
- B. No

**Correct Answer: B**

Use the Connection Monitor feature of Azure Network Watcher.

Reference:

<https://docs.microsoft.com/en-us/azure/network-watcher/network-watcher-monitoring-overview>

Question #76 Topic 5 DRAG

DROP -

You have an Azure subscription that contains the resources shown in the following table.

Name	Type	Description
vm1	Virtual machine	Uses a basic public IP address
vm2	Virtual machine	Uses a basic public IP address
nsg1	Network security group (NSG)	Allows incoming traffic from port 443
lb1	Azure Standard Load Balancer	<b>Not applicable</b>

You need to load balance HTTPS connections to vm1 and vm2 by using lb1.

Which three actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order. Select and Place:

**Actions**

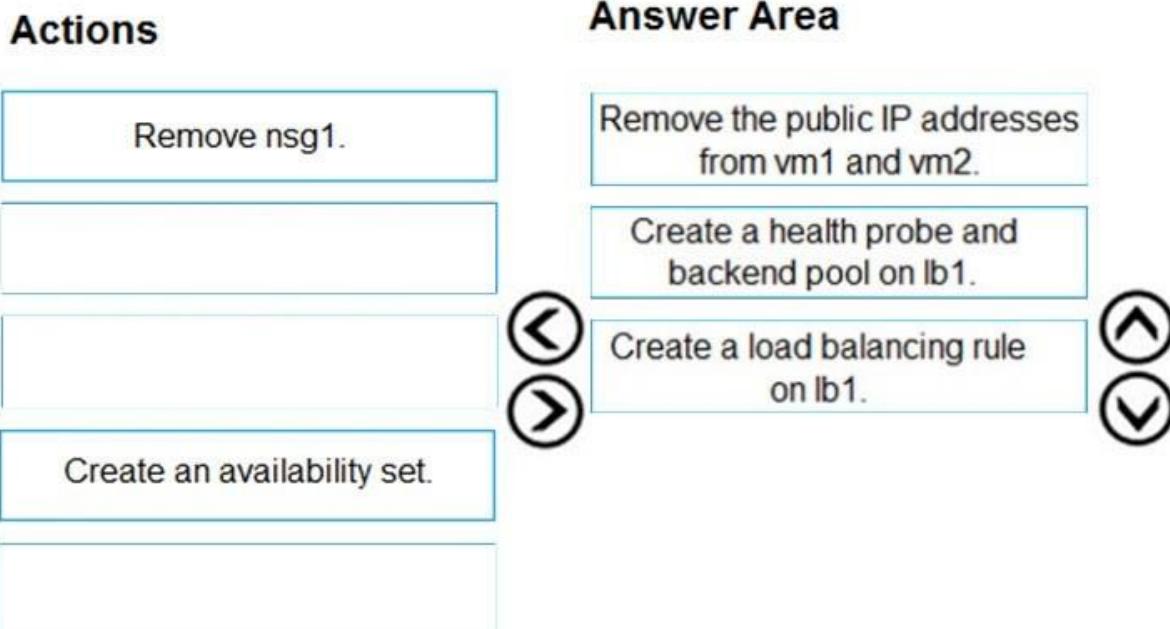
- Remove nsg1.
- Remove the public IP addresses from vm1 and vm2.
- Create a health probe and backend pool on lb1.
- Create an availability set.
- Create a load balancing rule on lb1.

**Answer Area**



**Correct**

**Answer:**



Reference:

<https://docs.microsoft.com/en-us/azure/load-balancer/tutorial-load-balancer-standard-public-zoneredundant-portal> Question #77Topic 5

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You manage a virtual network named VNet1 that is hosted in the West US Azure region.

VNet1 hosts two virtual machines named VM1 and VM2 that run Windows Server.

You need to inspect all the network traffic from VM1 to VM2 for a period of three hours.

Solution: From Azure Monitor, you create a metric on Network In and Network Out. Does this meet the goal?

- A. Yes
- B. No

**Correct Answer:** B Reference: <https://azure.microsoft.com/en-us/updates/general-availability-azure-network-watcher-connectionmonitor-in-all-public-regions/>

Question #78Topic 5

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have an app named App1 that is installed on two Azure virtual machines named VM1 and VM2.

Connections to App1 are managed by using an Azure Load Balancer.

The effective network security configurations for VM2 are shown in the following exhibit.

Priority	Name	Port	Protocol	Source	Destination	Action
100	Allow_131.107.100.50	443	TCP	131.107.100.50	VirtualNetwork	<span style="color: green;">Allow</span>
200	BlockAllOther441	443	Any	Any	Any	<span style="color: red;">Deny</span>
65000	AllowVnetInBound	Any	Any	VirtualNetwork	VirtualNetwork	<span style="color: green;">Allow</span>
65001	AllowAzureLoadBalancerInBound	Any	Any	AzureLoadBalancer	Any	<span style="color: green;">Allow</span>
65500	DenyAllInBound	Any	Any	Any	Any	<span style="color: red;">Deny</span>

You discover that connections to App1 from 131.107.100.50 over TCP port 443 fail.

You verify that the Load Balancer rules are configured correctly.

You need to ensure that connections to App1 can be established successfully from 131.107.100.50 over TCP port 443.

Solution: You create an inbound security rule that denies all traffic from the 131.107.100.50 source and has a priority of 64999. Does this meet the goal?

- A. Yes
- B. No

**Correct Answer: B**

Reference:

<https://fastreroute.com/azure-network-security-groups-explained/>

Question #79 Topic 5

DRAG DROP -

You have an Azure subscription that contains two on-premises locations named site1 and site2.

You need to connect site1 and site2 by using an Azure Virtual WAN.

Which four actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order. Select and Place:

Actions	Answer Area
Create a virtual hub.	
Create VPN sites.	
Connect the virtual networks to the hub.	
Create a Virtual WAN resource.	
Connect the VPN sites to the hub.	

**Correct**

**Answer:**

Actions	Answer Area
	Create a Virtual WAN resource.
	Create a virtual hub.
Connect the virtual networks to the hub.	Create VPN sites.
	Connect the VPN sites to the hub.

Reference: <https://docs.microsoft.com/en-us/azure/virtual-wan/virtual-wan-site-to-site-portal>

Question #80 Topic 5

HOTSPOT -

You have an Azure subscription that contains the virtual networks shown in the following table.

Name	Peered with	DNS server
VNET1	VNET2	Default (Azure-provided)
VNET2	VNET1	10.10.0.4

You have the virtual machines shown in the following table.

Name	IP address	Network interface	Connects to
Server1	10.10.0.4	NIC1	VNET1/Subnet1
Server2	172.16.0.4	NIC2	VNET1/Subnet2
Server3	192.168.0.4	NIC3	VNET2/Subnet2

You have the virtual network interfaces shown in the following table.

Name	DNS server
NIC1	Inherit from virtual network
NIC2	10.10.0.4
NIC3	Inherit from virtual network

Server1 is a DNS server that contains the resources shown in the following table.

Name	Type	Value
contoso.com	Primary DNS zone	Not applicable
Host1.contoso.com	A record	131.107.10.15

You have an Azure private DNS zone named contoso.com that has a virtual network link to VNET2 and the records shown in the following table.

Name	Type	Value
Host1	A record	131.107.200.20
Host2	A record	131.107.50.50

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point. Hot Area:

### Answer Area

Statements	Yes	No
Server2 resolves host2.contoso.com to 131.107.50.50.	<input type="radio"/>	<input type="radio"/>
Server2 resolves host1.contoso.com to 131.107.10.15.	<input type="radio"/>	<input type="radio"/>
Server3 resolves host2.contoso.com to 131.107.50.50.	<input type="radio"/>	<input type="radio"/>

Correct

Answer:

### Answer Area

Statements	Yes	No
Server2 resolves host2.contoso.com to 131.107.50.50.	<input checked="" type="radio"/>	<input type="radio"/>
Server2 resolves host1.contoso.com to 131.107.10.15.	<input type="radio"/>	<input checked="" type="radio"/>
Server3 resolves host2.contoso.com to 131.107.50.50.	<input checked="" type="radio"/>	<input type="radio"/>

### Question #81 Topic 5

You have a virtual network named VNet1 as shown in the exhibit. (Click the Exhibit tab.)

Refresh    Move    Delete

Resource group (change) Production	Address space 10.2.0.0/16		
Location West US	DNS servers Azure provided DNS service		
Subscription (change) Production subscription			
Subscription ID 14d26092-8e42-4ea7-b770-9dcef70fb1ea			
Tags (change) Click here to add tags			
Connected devices	<input type="text"/> Search connected devices		
DEVICE	TYPE	IP ADDRESS	SUBNET
No results.			

No devices are connected to VNet1.

You plan to peer VNet1 to another virtual network named VNet2. VNet2 has an address space of 10.2.0.0/16.

You need to create the peering. What should you do first?

- A. Modify the address space of VNet1.
- B. Add a gateway subnet to VNet1.

- C. Create a subnet on VNet1 and VNet2.
- D. Configure a service endpoint on VNet2.

**Correct Answer:** A

The virtual networks you peer must have non-overlapping IP address spaces. The exhibit indicates that VNet1 has an address space of 10.2.0.0/16, which is the same as VNet2, and thus overlaps. We need to change the address space for VNet1.

Reference: <https://docs.microsoft.com/en-us/azure/virtual-network/virtual-network-manage-peering#requirements-and-constraints> <https://docs.microsoft.com/en-us/azure/virtual-network/virtualnetworks-faq>

**Question #82 Topic 5**

You have the Azure virtual machines shown in the following table.

Name	IP address	Virtual network
VM1	10.0.0.4	VNET1
VM2	10.0.0.5	VNET1

VNET1 is linked to a private DNS zone named contoso.com that contains the records shown in the following table.

Name	Type	TTL	Value	Auto registered
comp1	TXT	3600	10.0.0.5	False
comp2	A	3600	10.0.0.5	False
comp3	CNAME	3600	comp1.contoso.com	False
comp4	PTR	3600	10.0.0.5	False

You need to ping VM2 from VM1.

Which DNS names can you use to ping VM2?

- A. comp2.contoso.com and comp4.contoso.com only
- B. comp1.contoso.com, comp2.contoso.com, comp3.contoso.com, and comp4.contoso.com
- C. comp2.contoso.com only
- D. comp1.contoso.com and comp2.contoso.com only
- E. comp1.contoso.com, comp2.contoso.com, and comp4.contoso.com only

**Correct Answer:** C Reference: <https://medium.com/azure-architects/exploring-azure-private-dns-be65de08f780> <https://simpledns.plus/help/dns-record-types>

**Question #83 Topic 5 HOTSPOT**

You have a network security group (NSG) named NSG1 that has the rules defined in the exhibit. (Click the Exhibit tab.)

```

PS C:\> Get-AzNetworkSecurityGroup -Name "NSG1" -ResourceGroupName "RG1" | Select -ExpandProperty SecurityRules

Name : ALLOW_HTTPS
Id   : /subscriptions/09d06b22-ff51-48b7-a8be-947f15cbd69d/resourceGroups/RG1/providers/Microsoft.Network/networkSecurityGroups/NSG1/securityRules/ALLOW_HTTPS
Etag  : W/"8e3e9995-aa78-41e2-bfea-44b50c389873"
ProvisioningState : Succeeded
Description      :
Protocol        : TCP
SourcePortRange  : {*}
DestinationPortRange : {443}
SourceAddressPrefix : {*}
DestinationAddressPrefix : {*}
SourceApplicationSecurityGroups : []
DestinationApplicationSecurityGroups : []
Access           : Allow
Priority         : 100
Direction        : Inbound

Name : DENY_PING
Id   : /subscriptions/09d06b22-ff51-48b7-a8be-947f15cbd69d/resourceGroups/RG1/providers/Microsoft.Network/networkSecurityGroups/NSG1/securityRules/DENY_PING
Etag  : W/"8e3e9995-aa78-41e2-bfea-44b50c389873"
ProvisioningState : Succeeded
Description      :
Protocol        : ICMP
SourcePortRange  : {*}
DestinationPortRange : {*}
SourceAddressPrefix : {VirtualNetwork}
DestinationAddressPrefix : {*}
SourceApplicationSecurityGroups : []
DestinationApplicationSecurityGroups : []
Access           : Deny
Priority         : 111
Direction        : Outbound

```

NSG1 is associated to a subnet named Subnet1. Subnet1 contains the virtual machines shown in the following table.

Name	IP address
VM1	10.1.0.10
VM2	10.1.0.11

You need to add a rule to NSG1 to ensure that VM1 can ping VM2. The solution must use the principle of least privilege.

How should you configure the rule? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

## Answer Area

Direction:

Inbound
Outbound

Source:

Any
10.1.0.10
10.1.0.11
10.1.0.10; 10.1.0.11
10.1.0.0/28

Destination:

Any
10.1.0.10
10.1.0.11
10.1.0.10; 10.1.0.11
10.1.0.0/28

Priority:

110
111
112

Correct

Answer:

## Answer Area

Direction:

Inbound
Outbound

Source:

Any
10.1.0.10
10.1.0.11
10.1.0.10; 10.1.0.11
10.1.0.0/28

Destination:

Any
10.1.0.10
10.1.0.11
10.1.0.10; 10.1.0.11
10.1.0.0/28

Priority:

110
111
112

Reference: <https://www.thomasmaurer.ch/2019/09/how-to-enable-ping-icmp-echo-on-an-azure-vm/>

Question #84 Topic 5

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have a computer named Computer1 that has a point-to-site VPN connection to an Azure virtual network named VNet1. The point-to-site connection uses a self-signed certificate.

From Azure, you download and install the VPN client configuration package on a computer named Computer2.

You need to ensure that you can establish a point-to-site VPN connection to VNet1 from Computer2.

Solution: On Computer2, you set the Startup type for the IPSec Policy Agent service to Automatic. Does this meet the goal?

- A. Yes
- B. No

**Correct Answer: B**

Each client computer that connects to a VNet using Point-to-Site must have a client certificate installed. You generate a client certificate from the self-signed root certificate, and then export and install the client certificate. If the client certificate is not installed, authentication fails.

Reference:

<https://docs.microsoft.com/en-us/azure/vpn-gateway/vpn-gateway-certificates-point-to-site>

**Question #85 Topic 5**

You have five Azure virtual machines that run Windows Server 2016. The virtual machines are configured as web servers.

You have an Azure load balancer named LB1 that provides load balancing services for the virtual machines.

You need to ensure that visitors are serviced by the same web server for each request. What should you configure?

- A. Session persistence to Client IP and protocol
- B. Protocol to UDP
- C. Session persistence to None
- D. Floating IP (direct server return) to Enabled

**Correct Answer: A** Reference: <https://docs.microsoft.com/en-us/azure/load-balancer/load-balancer-distribution-mode?tabs=azureportal>

**Question #86 Topic 5**

You have an Azure subscription that uses the public IP addresses shown in the following table.

Name	IP version	SKU	IP address assignment	Availability zone
IP1	IPv6	Basic	Static	Not applicable
IP2	IPv6	Basic	Dynamic	Not applicable
IP3	IPv6	Standard	Static	Zone-redundant

You need to create a public Azure Standard Load Balancer. Which public IP addresses can you use?

- A. IP1, IP2, and IP3
- B. IP2 only
- C. IP3 only
- D. IP1 and IP3 only

**Correct Answer: C**

Matching SKUs are required for load balancer and public IP resources. You can't have a mixture of Basic SKU resources and standard SKU resources.

Reference: <https://docs.microsoft.com/en-us/azure/virtual-network/ip-services/public-ip-addresses>

Question #87 Topic 5

You have an Azure subscription.

You are deploying an Azure Kubernetes Service (AKS) cluster that will contain multiple pods. The pods will use kubernetes networking.

You need to restrict network traffic between the pods. What should you configure on the AKS cluster?

- A. the Azure network policy
- B. the Calico network policy
- C. pod security policies
- D. an application security group

**Correct Answer:** B

Reference:

<https://docs.microsoft.com/en-us/azure/aks/use-network-policies>

Question #88 *Topic 5 HOTSPOT*

You have an Azure subscription that contains a virtual network named VNet1. VNet1 uses an IP address space of 10.0.0.0/16 and contains the VPN Gateway and subnets in the following table:

Name	IP address range
Subnet0	10.0.0.0/24
Subnet1	10.0.1.0/24
Subnet2	10.0.2.0/24
GatewaySubnet	10.0.254.0/24

Subnet1 contains a virtual appliance named VM1 that operates as a router.

You create a routing table named RT1.

You need to route all inbound traffic from the VPN gateway to VNet1 through VM1.

How should you configure RT1? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

## Answer Area

Address prefix

▼
10.0.0.0/16
10.0.1.0/24
10.0.254.0/24

Next hop type

▼
Virtual appliance
Virtual network
Virtual network gateway

Assigned to

▼
GatewaySubnet
Subnet0
Subnet1 and Subnet2

Correct

Answer:

## Answer Area

Address prefix

10.0.0.0/16
10.0.1.0/24
10.0.254.0/24

Next hop type

Virtual appliance
Virtual network
Virtual network gateway

Assigned to

GatewaySubnet
Subnet0
Subnet1 and Subnet2

### Question #89 Topic 5

You have five Azure virtual machines that run Windows Server 2016. The virtual machines are configured as web servers.

You have an Azure load balancer named LB1 that provides load balancing services for the virtual machines.

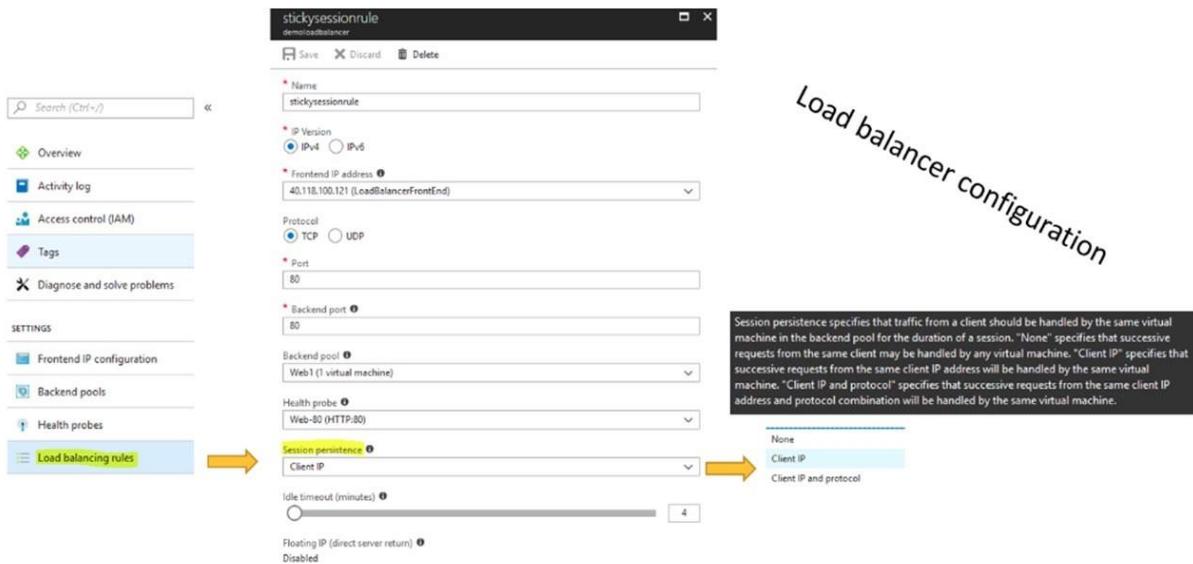
You need to ensure that visitors are serviced by the same web server for each request. What should you configure?

- A. Floating IP (direct server return) to Enabled
- B. Floating IP (direct server return) to Disabled
- C. a health probe
- D. Session persistence to Client IP and Protocol

### Correct Answer: D

With Sticky Sessions when a client starts a session on one of your web servers, session stays on that specific server. To configure An Azure Load-Balancer For Sticky Sessions set Session persistence to Client IP.

On the following image you can see sticky session configuration:



Note:

There are several versions of this question in the exam. The question can have other incorrect answer options, including the following:

1. Idle Time-out (minutes) to 20
2. Protocol to UDP Reference:

<https://cloudopszone.com/configure-azure-load-balancer-for-sticky-sessions/>

Question #90 Topic 5

HOTSPOT -

You have an Azure subscription that contains the virtual machines shown in the following table:

Name	Operating system	Connects to
VM1	Windows Server 2019	Subnet1
VM2	Windows Server 2019	Subnet2

VM1 and VM2 use public IP addresses. From Windows Server 2019 on VM1 and VM2, you allow inbound Remote Desktop connections.

Subnet1 and Subnet2 are in a virtual network named VNET1.

The subscription contains two network security groups (NSGs) named NSG1 and NSG2. NSG1 uses only the default rules.

NSG2 uses the default rules and the following custom incoming rule:

- Priority: 100
- Name: Rule1
- Port: 3389
- Protocol: TCP
- Source: Any
- Destination: Any
- Action: Allow

NSG1 is associated to Subnet1. NSG2 is associated to the network interface of VM2.

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point.

Hot Area:

## Answer Area

Statements	Yes	No
From the Internet, you can connect to VM1 by using Remote Desktop.	<input type="radio"/>	<input type="radio"/>
From the Internet, you can connect to VM2 by using Remote Desktop.	<input type="radio"/>	<input type="radio"/>
From VM1, you can connect to VM2 by using Remote Desktop	<input type="radio"/>	<input type="radio"/>

Correct

Answer:

## Answer Area

Statements	Yes	No
From the Internet, you can connect to VM1 by using Remote Desktop.	<input type="radio"/>	<input checked="" type="radio"/>
From the Internet, you can connect to VM2 by using Remote Desktop.	<input checked="" type="radio"/>	<input type="radio"/>
From VM1, you can connect to VM2 by using Remote Desktop	<input type="radio"/>	<input type="radio"/>

Question #91 Topic 5

You have an Azure subscription that contains two virtual machines named VM1 and VM2.

You create an Azure load balancer.

You plan to create a load balancing rule that will load balance HTTPS traffic between VM1 and VM2.

Which two additional load balancer resources should you create before you can create the load balancing rule? Each correct answer presents part of the solution. NOTE: Each correct selection is worth one point.

- A. a frontend IP address
- B. an inbound NAT rule
- C. a virtual network
- D. a backend pool
- E. a health probe

Correct Answer: DE

Reference:

<https://docs.microsoft.com/en-us/azure/load-balancer/components>

Question #92 Topic 5

You have an on-premises network that contains a database server named dbserver1.

You have an Azure subscription.

You plan to deploy three Azure virtual machines. Each virtual machine will be deployed to a separate availability zone.

You need to configure an Azure VPN gateway for a site-to-site VPN. The solution must ensure that the virtual machines can connect to dbserver1.

Which type of public IP address SKU and assignment should you use for the gateway?

- A. a basic SKU and a static IP address assignment
- B. a standard SKU and a static IP address assignment
- C. a basic SKU and a dynamic IP address assignment

**Correct Answer:B**

VPN gateway supports only Dynamic.

Note: VPN gateway requires a public IP address for its configuration. A public IP address is used as the external connection point of the VPN.

Specify in the values for Public IP address. These settings specify the public IP address object that gets associated to the VPN gateway. The public IP address is dynamically assigned to this object when the VPN gateway is created. The only time the Public IP address changes is when the gateway is deleted and re-created. Reference:

<https://docs.microsoft.com/en-us/azure/vpn-gateway/tutorial-site-to-site-portal>

Question #93 *Topic 5*

HOTSPOT -

You have the Azure virtual machines shown in the following table.

Name	IP address	Virtual network
VM1	10.0.0.4	VNET1
VM2	172.16.0.4	VNET2
VM3	192.168.0.4	VNET3
VM4	192.168.0.5	VNET3

VNET1, VNET2, and VNET3 are peered.

Name	Type	Value
Server1	A	131.107.2.3
Server2	A	131.107.2.4

VNET1 and VNET2 are linked to an Azure private DNS zone named contoso.com that contains the records shown in the following table.

Name	Type	Value
Server1	A	131.107.3.3
Server2	A	131.107.3.4

The virtual networks are configured to use the DNS servers shown in the following table.

<b>Virtual network</b>	<b>DNS server</b>
VNET1	Default (Azure-provided)
VNET2	Custom: 192.168.0.5
VNET3	Custom: 192.168.0.5

For each of the following statements, select Yes if the statement is true. Otherwise, select No.  
 NOTE: Each correct selection is worth one point. Hot Area:

<b>Statements</b>	<b>Yes</b>	<b>No</b>
From VM1, server1.contoso.com resolves to 131.107.3.3.	<input type="radio"/>	<input type="radio"/>
From VM2, server1.contoso.com resolves to 131.107.3.3.	<input type="radio"/>	<input type="radio"/>
From VM3, server2.contoso.com resolves to 131.107.2.4.	<input type="radio"/>	<input type="radio"/>

**Correct**

**Answer:**

<b>Statements</b>	<b>Yes</b>	<b>No</b>
From VM1, server1.contoso.com resolves to 131.107.3.3.	<input checked="" type="radio"/>	<input type="radio"/>
From VM2, server1.contoso.com resolves to 131.107.3.3.	<input type="radio"/>	<input checked="" type="radio"/>
From VM3, server2.contoso.com resolves to 131.107.2.4.	<input checked="" type="radio"/>	<input type="radio"/>

Box 1: Yes -

VM1 is in VNET1. In VNET1 Server1 resolves to 131.107.3.3

<b>Name</b>	<b>Type</b>	<b>Value</b>
Server1	A	131.107.3.3
Server2	A	131.107.3.4

Box 2: No -

VM2 is in VNET2. VNET2 uses custom DNS server 192.168.0.5

Box 3: Yes

Question #94 Topic 5

HOTSPOT -

You have two Azure virtual machines as shown in the following table.

Name	Operating system	Private IP address	Public IP address	DNS suffix configured in the operating system	Connected to
vm1	Windows Server 2019	10.0.1.4	131.107.50.20	Contoso.com	vnet1
vm2	SUSE Linux Enterprise Server 15 (SLES) SP2	10.0.1.5	131.107.90.80	<b>None</b>	vnet1

You create the Azure DNS zones shown in the following table.

Name	Type
Contoso.com	DNS zone
Fabrikam.com	Private DNS zone

You perform the following actions:

- I click fabrikam.com, you add a virtual network link to vnet1 and enable auto registration.
- For contoso.com, you assign vm1 and vm2 the Owner role.

For each of the following statements, select Yes if the statement is true. Otherwise, select No. NOTE:

Each correct selection is worth one point.

Hot Area:

Statements	Yes	No
The DNS A record for vm1 is added to contoso.com and has the IP address of 131.107.50.20.	<input type="radio"/>	<input type="radio"/>
The DNS A record for vm1 is added to fabrikam.com and has the IP address of 10.0.1.4.	<input type="radio"/>	<input type="radio"/>
The DNS A record for vm2 is added to fabrikam.com and has the IP address of 10.0.1.5.	<input type="radio"/>	<input type="radio"/>

**Correct**

Answer:

Statements	Yes	No
The DNS A record for vm1 is added to contoso.com and has the IP address of 131.107.50.20.	<input checked="" type="radio"/>	<input type="radio"/>
The DNS A record for vm1 is added to fabrikam.com and has the IP address of 10.0.1.4.	<input type="radio"/>	<input checked="" type="radio"/>
The DNS A record for vm2 is added to fabrikam.com and has the IP address of 10.0.1.5.	<input checked="" type="radio"/>	<input type="radio"/>

Box 1: Yes -

The DNS zone uses the Public IP address of vm1.

Box 2: Yes -

Fabrikam.com is a Private DNS zone. The private IP address is used.

Note: The Azure DNS private zones auto registration feature manages DNS records for virtual machines deployed in a virtual network. When you link a virtual network with a private DNS zone with this setting enabled, a DNS record gets created for each virtual machine deployed in the virtual network. For each virtual machine, an A record and a PTR record are created. DNS records for newly deployed virtual machines are also automatically created in the linked private DNS zone.

Note: If you use Azure Provided DNS then appropriate DNS suffix will be automatically applied to your virtual machines. For all other options you must either use

Fully Qualified Domain Names (FQDN) or manually apply appropriate DNS suffix to your virtual machines.

Box 3: Yes - Reference: <https://docs.microsoft.com/en-us/azure/dns/dns-zones-records>

<https://docs.microsoft.com/en-us/azure/virtual-network/virtual-networks-name-resolution-for-vms-and-role-instances>

Question #95 Topic 5

You have an on-premises datacenter and an Azure subscription.

You plan to connect the datacenter to Azure by using ExpressRoute.

You need to deploy an ExpressRoute gateway. The solution must meet the following requirements:

- Support up to 10 Gbps of traffic.

- Support availability zones.

- Support FastPath.

- Minimize costs.

Which SKU should you deploy?

- A. ERGw1AZ
- B. ERGw2
- C. ErGw3
- D. ErGw3AZ

**Correct Answer: D**

ErGw3Az supports FastPath.

The following table shows the features supported across each gateway type.

Gateway SKU	VPN Gateway and ExpressRoute coexistence	FastPath	Max Number of Circuit Connections
Standard SKU/ERGw1Az	Yes	No	4
High Perf SKU/ERGw2Az	Yes	No	8
Ultra Performance SKU/ErGw3Az	Yes	Yes	16

Note: ExpressRoute virtual network gateways can use the following SKUs:

Standard -

HighPerformance -

UltraPerformance -

ErGw1Az -

ErGw2Az -

ErGw3Az - Reference:

<https://docs.microsoft.com/en-us/azure/expressroute/expressroute-about-virtual-network-gateways>

Question #96 *Topic 5*

HOTSPOT -

You have a virtual network named VNET1 that contains the subnets shown in the following table:

Name	Subnet	Network security group (NSG)
Subnet1	10.10.1.0/24	NSG1
Subnet2	10.10.2.0/24	None

You have Azure virtual machines that have the network configurations shown in the following table:

Name	Subnet	IP address	NSG
VM1	Subnet1	10.10.1.5	NSG2
VM2	Subnet2	10.10.2.5	None
VM3	Subnet2	10.10.2.6	None

For NSG1, you create the inbound security rule shown in the following table:

Priority	Source	Destination	Destination port	Action
101	10.10.2.0/24	10.10.1.0/24	TCP/1433	Allow

For NSG2, you create the inbound security rule shown in the following table:

Priority	Source	Destination	Destination port	Action
125	10.10.2.5	10.10.1.5	TCP/1433	Block

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point. Hot Area:

## Answer Area

Statements	Yes	No
VM2 can connect to the TCP port 1433 services on VM1.	<input type="radio"/>	<input type="radio"/>
VM1 can connect to the TCP port 1433 services on VM2.	<input type="radio"/>	<input type="radio"/>
VM2 can connect to the TCP port 1433 services on VM3.	<input type="radio"/>	<input type="radio"/>

Correct

Answer:

## Answer Area

Statements	Yes	No
VM2 can connect to the TCP port 1433 services on VM1.	<input checked="" type="radio"/>	<input type="radio"/>
VM1 can connect to the TCP port 1433 services on VM2.	<input checked="" type="radio"/>	<input type="radio"/>
VM2 can connect to the TCP port 1433 services on VM3.	<input checked="" type="radio"/>	<input type="radio"/>

Box 1: Yes -

The inbound security rule for NSG1 allows TCP port 1433 from 10.10.2.0/24 (or Subnet2 where VM2 and VM3 are located) to 10.10.1.0/24 (or Subnet1 where VM1 is located) while the inbound security rule for NSG2 blocks TCP port 1433 from 10.10.2.5 (or VM2) to 10.10.1.5 (or VM1). However, the NSG1 rule has a higher priority (or lower value) than the NSG2 rule.

Box 2: Yes -

No rule explicitly blocks communication from VM1. The default rules, which allow communication, are thus applied.

Box 3: Yes -

No rule explicitly blocks communication between VM2 and VM3 which are both on Subnet2. The default rules, which allow communication, are thus applied.

Reference: <https://docs.microsoft.com/en-us/azure/virtual-network/security-overview>

Question #97 Topic 5

HOTSPOT -

You have an Azure subscription named Subscription1.

Subscription1 contains the virtual machines in the following table:

Name	IP address
VM1	10.0.1.4
VM2	10.0.2.4
VM3	10.0.3.4

Subscription1 contains a virtual network named VNet1 that has the subnets in the following table:

Name	Address space	Connected virtual machine
Subnet1	10.0.1.0/24	VM1
Subnet2	10.0.2.0/24	VM2
Subnet3	10.0.3.0/24	VM3

VM3 has multiple network adapters, including a network adapter named NIC3. IP forwarding is enabled on NIC3. Routing is enabled on VM3.

You create a route table named RT1 that contains the routes in the following table:

<b>Address prefix</b>	<b>Next hop type</b>	<b>Next hop address</b>
10.0.1.0/24	Virtual appliance	10.0.3.4
10.0.2.0/24	Virtual appliance	10.0.3.4

You apply RT1 to Subnet1 and Subnet2.

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point. Hot Area:

### Answer Area

<b>Statements</b>	<b>Yes</b>	<b>No</b>
VM3 can establish a network connection to VM1.	<input type="radio"/>	<input type="radio"/>
If VM3 is turned off, VM2 can establish a network connection to VM1.	<input type="radio"/>	<input type="radio"/>
VM1 can establish a network connection to VM2.	<input type="radio"/>	<input type="radio"/>

Correct

Answer:

### Answer Area

<b>Statements</b>	<b>Yes</b>	<b>No</b>
VM3 can establish a network connection to VM1.	<input checked="" type="radio"/>	<input type="radio"/>
If VM3 is turned off, VM2 can establish a network connection to VM1.	<input type="radio"/>	<input checked="" type="radio"/>
VM1 can establish a network connection to VM2.	<input checked="" type="radio"/>	<input type="radio"/>

IP forwarding enables the virtual machine a network interface is attached to:

Receive network traffic not destined for one of the IP addresses assigned to any of the IP configurations assigned to the network interface.

Send network traffic with a different source IP address than the one assigned to one of a network interface's IP configurations.

The setting must be enabled for every network interface that is attached to the virtual machine that receives traffic that the virtual machine needs to forward. A virtual machine can forward traffic whether it has multiple network interfaces or a single network interface attached to it.

Box 1: Yes -

The routing table allows connections from VM3 to VM1 and VM2. And as IP forwarding is enabled on VM3, VM3 can connect to VM1.

Box 2: No -

VM3, which has IP forwarding, must be turned on, in order for VM2 to connect to VM1.

Box 3: Yes -

The routing table allows connections from VM1 and VM2 to VM3. IP forwarding on VM3 allows VM1 to connect to VM2 via VM3.

Reference:

<https://docs.microsoft.com/en-us/azure/virtual-network/virtual-networks-udr-overview>

<https://www.quora.com/What-is-IP-forwarding>

Question #98 Topic 5

Your on-premises network contains an SMB share named Share1.

You have an Azure subscription that contains the following resources:

□ A web app named webapp1 □

A virtual network named VNET1

You need to ensure that webapp1 can connect to Share1. What should you deploy?

- A. an Azure Application Gateway
- B. an Azure Active Directory (Azure AD) Application Proxy
- C. an Azure Virtual Network Gateway

**Correct Answer: C**

A Site-to-Site VPN gateway connection can be used to connect your on-premises network to an Azure virtual network over an IPsec/IKE (IKEv1 or IKEv2) VPN tunnel.

This type of connection requires a VPN device, a VPN gateway, located on-premises that has an externally facing public IP address assigned to it.

Incorrect Answers:

B: Application Proxy is a feature of Azure AD that enables users to access on-premises web applications from a remote client.

Reference: <https://docs.microsoft.com/en-us/azure/vpn-gateway/vpn-gateway-howto-site-to-site-resource-manager-portal>

Question #99 Topic 5

You plan to deploy several Azure virtual machines that will run Windows Server 2019 in a virtual machine scale set by using an Azure Resource Manager template.

You need to ensure that NGINX is available on all the virtual machines after they are deployed. What should you use?

- A. the Publish-AzVMDscConfiguration cmdlet
- B. Azure Application Insights
- C. Azure Custom Script Extension
- D. the New-AzConfigurationAssignment cmdlet

**Correct Answer: C Note:**

There are several versions of this question in the exam. The question has two correct answers:

1. a Desired State Configuration (DSC) extension

2. Azure Custom Script Extension

The question can have other incorrect answer options, including the following:

□ Deployment Center in Azure App Service

□ a Microsoft Intune device configuration profile

Reference:

<https://docs.microsoft.com/en-us/azure/architecture/framework/devops/automation-configuration>

Question #100 *Topic 5*

Your on-premises network contains a VPN gateway.

You have an Azure subscription that contains the resources shown in the following table.

Name	Type	Description
vgw1	Virtual network gateway	Gateway for Site-to-Site VPN to the on-premises network
storage1	Storage account	Standard performance tier
Vnet1	Virtual network	Enabled forced tunneling
VM1	Virtual machine	Connected to Vnet1

You need to ensure that all the traffic from VM1 to storage1 travels across the Microsoft backbone network.

What should you configure?

- A. a network security group (NSG)
- B. service endpoints
- C. Azure Peering Service
- D. Azure Firewall

**Correct Answer:** *B*

Question #101 *Topic 5*

You plan to deploy route-based Site-to-Site VPN connections between several on-premises locations and an Azure virtual network.

Which tunneling protocol should you use? 

- A. IKEv1
- B. PPTP
- C. IKEv2
- D. L2TP

**Correct Answer:** *C*

A Site-to-Site (S2S) VPN gateway connection is used to connect your on-premises network to an Azure virtual network over an IPsec/IKE (IKEv1 or IKEv2) VPN tunnel.

IKEv2 supports 10 S2S connections, while IKEv1 only supports 1.

Reference: <https://docs.microsoft.com/en-us/azure/vpn-gateway/vpn-gateway-howto-site-to-site-classic-portal> <https://docs.microsoft.com/en-us/azure/vpn-gateway/vpn-gateway-connect-multiple-policybased-rm-ps>

Question #102 *Topic 5*

You have an Azure subscription that contains the resources shown in the following table.

Name	Type	Description
VNET1	Virtual network	Azure region: US East Contains the following subnets: <ul style="list-style-type: none"> <li>• Subnet1: 172.16.1.0/24</li> <li>• Subnet2: 172.16.2.0/24</li> <li>• Subnet3: 172.16.3.0/24</li> </ul>
VNET2	Virtual network	Azure region: West US Contains the following subnets: <ul style="list-style-type: none"> <li>• DemoSubnet1: 172.16.1.0/24</li> <li>• RecoverySubnetA: 172.16.5.0/24</li> <li>• RecoverySubnetB: 172.16.3.0/24</li> <li>• TestSubnet1: 172.16.2.0/24</li> </ul>
VM1	Virtual machine	Connected to Subnet2

You configure Azure Site Recovery to replicate VM1 between the US East and West US regions.

You perform a test failover of VM1 and specify VNET2 as the target virtual network.

When the test version of VM1 is created, to which subnet will the virtual machine be connected?

- A. TestSubnet1
- B. DemoSubnet1
- C. RecoverySubnetA
- D. RecoverySubnetB

**Correct Answer:** A

#### Question #103 Topic 5

You have five Azure virtual machines that run Windows Server 2016. The virtual machines are configured as web servers.

You have an Azure load balancer named LB1 that provides load balancing services for the virtual machines.

You need to ensure that visitors are serviced by the same web server for each request.

What should you configure?

- A. Protocol to UDP
- B. Session persistence to None
- C. Floating IP (direct server return) to Disabled
- D. Session persistence to Client IP

**Correct Answer: D**

Question #104 *Topic 5*

You plan to deploy several Azure virtual machines that will run Windows Server 2019 in a virtual machine scale set by using an Azure Resource Manager template.

You need to ensure that NGINX is available on all the virtual machines after they are deployed.

What should you use?

- A. the Publish-AzVMDscConfiguration cmdlet
- B. a Microsoft Endpoint Manager device configuration profile
- C. Deployment Center in Azure App Service
- D. a Desired State Configuration (DSC) extension

**Correct Answer: D**

Question #105 *Topic 5*

You have five Azure virtual machines that run Windows Server 2016. The virtual machines are configured as web servers.

You have an Azure load balancer named LB1 that provides load balancing services for the virtual machines.

You need to ensure that visitors are serviced by the same web server for each request.

What should you configure?

- A. Floating IP (direct server return) to Disabled
- B. Session persistence to Client IP
- C. Protocol to UDP
- D. Idle Time-out (minutes) to 20

**Correct Answer: B**

Question #106 *Topic 5*

You have an Azure subscription that contains 20 virtual machines, a network security group (NSG) named NSG1, and two virtual networks named VNET1 and VNET2 that are peered.

You plan to deploy an Azure Bastion Basic SKU host named Bastion1 to VNET1.

You need to configure NSG1 to allow inbound access to the virtual machines via Bastion1.

Which port should you configure for the inbound security rule?

- A. 22
- B. 443
- C. 389
- D. 8080

**Correct Answer:** *B*

Question #107 *Topic 5*

HOTSPOT

Your network contains an on-premises Active Directory Domain Services (AD DS) domain named contoso.com. The domain contains the servers shown in the following table.

Name	IP address	Role
DC1	192.168.2.1/16	Domain controller DNS server
Server1	192.168.2.50/16	Member server

You plan to migrate contoso.com to Azure.

You create an Azure virtual network named VNET1 that has the following settings:

- Address space: 10.0.0.0/16 • Subnet:
  - Name: Subnet1 ◦ IPv4: 10.0.1.0/24

You need to move DC1 to VNET1. The solution must ensure that the member servers in contoso.com can resolve AD DS DNS names.

How should you configure DC1? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

## Answer Area

IP address

Obtain an IP address automatically	▼
Use 10.0.1.3	
Use 10.0.2.1	
Use 192.168.2.1	

Name resolution

Configure VNET1 to use a custom DNS server	▼
Configure VNET1 to use the default Azure-provided DNS server	
Create an Azure Private DNS zone named contoso.com	
Create an Azure public DNS zone named contoso.com	

Correct

Answer:

## Answer Area

IP address

Obtain an IP address automatically	▼
Use 10.0.1.3	
Use 10.0.2.1	
Use 192.168.2.1	

Name resolution

Configure VNET1 to use a custom DNS server	▼
Configure VNET1 to use the default Azure-provided DNS server	
Create an Azure Private DNS zone named contoso.com	
Create an Azure public DNS zone named contoso.com	

Question #108Topic 5

You have five Azure virtual machines that run Windows Server 2016. The virtual machines are configured as web servers.

You have an Azure load balancer named LB1 that provides load balancing services for the virtual machines.

You need to ensure that visitors are serviced by the same web server for each request.

What should you configure?

- A. Session persistence to None
- B. a health probe
- C. Session persistence to Client IP
- D. Idle Time-out (minutes) to 20

**Correct Answer:** C

**Question #109 Topic 5**

You have an Azure subscription that contains the virtual networks shown in the following table.

Name	Azure region	Resource group
VNET1	West US	RG1
VNET2	Central US	RG1
VNET3	Central US	RG2
VNET4	West US	RG2

You need to deploy an Azure firewall named AF1 to RG1 in the West US Azure region.

To which virtual networks can you deploy AF1?

- A. VNET1, VNET2, VNET3, and VNET4
- B. VNET1 and VNET2 only
- C. VNET1 only
- D. VNET1, VNET2, and VNET4 only
- E. VNET1 and VNET4 only

**Correct Answer:** E

**Question #110 Topic 5**

You have an on-premises network.

You have an Azure subscription that contains three virtual networks named VNET1, VNET2, and VNET3. The virtual networks are peered and connected to the on-premises network. The subscription contains the virtual machines shown in the following table.

Name	Location	Connected to
VM1	West US	VNET1
VM2	West US	VNET1
VM3	West US	VNET2
VM4	Central US	VNET3

You need to monitor connectivity between the virtual machines and the on-premises network by using Connection Monitor.

What is the minimum number of connection monitors you should deploy?

- A. 1
- B. 2
- C. 3
- D. 4

**Correct Answer:** A

Question #111*Topic 5*

HOTSPOT

- You plan to deploy the following Azure Resource Manager (ARM) template.

```
{
  "$schema": "https://schema.management.azure.com/schemas/2015-01-01/deploymentTemplate.json#",
  "contentVersion": "1.0.0.0",
  "parameters": {},
  "variables": {
    "vnetId": "[resourceId('Microsoft.Network/virtualNetworks', 'VNET1')]",
    "lbId": "[resourceId('Microsoft.Network/loadBalancers', 'LB1')]",
    "sku": "Standard",
    "netname": "APP1"
  },
  "resources": [
    {
      "apiVersion": "2017-08-01",
      "type": "Microsoft.Network/loadBalancers",
      "name": "LB1",
      "location": "EastUS",
      "sku": {
        "name": "[variables('sku')]"
      },
      "properties": {
        "frontendIPConfiguration": [
          {
            "name": "[variables('netname')]",
            "properties": {
              "subnet": {
                "id": "[concat(variables('vnetId'), '/subnets/', variables('netname'))]"
              },
              "privateIPAllocationMethod": "Dynamic"
            }
          }
        ],
        "backendAddressPools": [
          {
            "name": concat(variables('netname'), '-Servers')"
          }
        ],
        "loadBalancingRules": [
          {
            "name": "APP1",
            "properties": {
              "frontendIPConfiguration": {
                "id": "[concat(variables('lbId'), '/frontendIPConfigurations/', variables('netname'))]"
              },
              "backendAddressPool": {
                "id": "[concat(variables('lbId'), '/backendAddressPool/', variables('netname'))]"
              },
              "probe": {
                "id": "[concat(variables('lbId'), '/probes/probe')]"
              },
              "backendPort": 8080,
              "protocol": "Tcp",
              "frontendPort": 80,
              "enableFloatingIP": false,
              "idleTimeoutInMinutes": 4,
              "loadDistribution": "SourceIPProtocol"
            }
          }
        ],
        "probes": [
          {
            "name": "probe",
            "properties": {
              "protocol": "Tcp",
              "port": 8080,
              "intervalInSeconds": 15,
              "numberOfProbes": 2
            }
          }
        ]
      }
    }
  ]
}
```

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point.

### Answer Area

Statements	Yes	No
LB1 will be connected to a subnet named VNET1/netname	<input type="radio"/>	<input type="radio"/>
LB1 can be deployed only to the resource group that contains VNET1	<input type="radio"/>	<input type="radio"/>
The value of the <code>sku</code> variable can be provided as a parameter when the template is deployed from a command prompt	<input type="radio"/>	<input type="radio"/>

**Correct**

**Answer:**

### Answer Area

Statements	Yes	No
LB1 will be connected to a subnet named VNET1/netname	<input type="radio"/>	<input checked="" type="radio"/>
LB1 can be deployed only to the resource group that contains VNET1	<input checked="" type="radio"/>	<input type="radio"/>
The value of the <code>sku</code> variable can be provided as a parameter when the template is deployed from a command prompt	<input type="radio"/>	<input checked="" type="radio"/>

Question #112 *Topic 5*

You have an Azure subscription that contains a storage account. The account stores website data.

You need to ensure that inbound user traffic uses the Microsoft point-of-presence (POP) closest to the user's location.

What should you configure?

- A. private endpoints
- B. Azure Firewall rules
- C. Routing preference
- D. load balancing

**Correct Answer: C**

Question #113 *Topic 5*

You have two Azure virtual machines named VM1 and VM2 that run Windows Server. The virtual machines are in a subnet named Subnet1. Subnet1 is in a virtual network named VNet1.

You need to prevent VM1 from accessing VM2 on port 3389.

What should you do?

- A. Create a network security group (NSG) that has an outbound security rule to deny destination port 3389 and apply the NSG to the network interface of VM1.
- B. Configure Azure Bastion in VNet1.
- C. Create a network security group (NSG) that has an outbound security rule to deny source port 3389 and apply the NSG to Subnet1.
- D. Create a network security group (NSG) that has an inbound security rule to deny source port 3389 and apply the NSG to Subnet1.

**Correct Answer:** A

**Question #114 Topic 5**

You have an Azure subscription that contains the resources shown in the following table.

Name	Type	Description
App1	App Service	Virtual network integration enabled for VNET1
ASP1	App Service plan	Standard SKU
VNET1	Virtual network	None
Firewall1	Azure Firewall	Connected to VNET1

You need to manage outbound traffic from VNET1 by using Firewall1.

What should you do first?

- A. Configure the Hybrid Connection Manager.
- B. Upgrade ASP1 to the Premium SKU.
- C. Create a route table.
- D. Create an Azure Network Watcher.

**Correct Answer:** C

**Question #115 Topic 5**

You have an Azure subscription that contains the resources shown in the following table.

Name	Type
VM1	Virtual machine
App1	Web app
contoso.com	Azure Active Directory Domain Services (Azure AD DS) domain

All the resources connect to a virtual network named VNet1.

You plan to deploy an Azure Bastion host named Bastion1 to VNet1.

Which resources can be protected by using Bastion1?

- A. VM1 only
- B. contoso.com only
- C. App1 and contoso.com only
- D. VM1 and contoso.com only
- E. VM1, App1, and contoso.com

**Correct Answer:** A

**Question #116 Topic 5**

You have five Azure virtual machines that run Windows Server 2016. The virtual machines are configured as web servers.

You have an Azure load balancer named LB1 that provides load balancing services for the virtual machines.

You need to ensure that visitors are serviced by the same web server for each request.

What should you configure?

- A. Session persistence to None
- B. a health probe
- C. Session persistence to Client IP and protocol
- D. Idle Time-out (minutes) to 20

**Correct Answer:** C

**Question #117 Topic 5**

You have five Azure virtual machines that run Windows Server 2016. The virtual machines are configured as web servers.

You have an Azure load balancer named LB1 that provides load balancing services for the virtual machines.

You need to ensure that visitors are serviced by the same web server for each request.

What should you configure?

- A. a health probe
- B. Floating IP (direct server return) to Enabled
- C. Session persistence to Client IP and protocol
- D. Protocol to UDP

**Correct Answer:** C

Question #118 *Topic 5*

You have an Azure subscription that contains 10 virtual machines and the resources shown in the following table.

Name	Type	Description
VNET1	Virtual network	<i>none</i>
Bastion1	Basic SKU Azure Bastion host	Subnet size /26

You need to ensure that Bastion1 can support 100 concurrent SSH users. The solution must minimize administrative effort.

What should you do first?

- A. Resize the subnet of Bastion1
- B. Configure host scaling.
- C. Create a network security group (NSG)
- D. Upgrade Bastion1 to the Standard SKU

**Correct Answer:** D

Question #119 *Topic 5*

You have five Azure virtual machines that run Windows Server 2016. The virtual machines are configured as web servers.

You have an Azure load balancer named LB1 that provides load balancing services for the virtual machines.

You need to ensure that visitors are serviced by the same web server for each request.

What should you configure?

- A. Session persistence to Client IP and protocol
- B. Protocol to UDP
- C. Session persistence to None
- D. Floating IP (direct server return) to Disabled

**Correct Answer:** A

Question #120Topic 5

DRAG DROP

You have a Windows 11 device named Device1 and an Azure subscription that contains the resources shown in the following table.

Name	Description
VNET1	Virtual network
VM1	Virtual machine that runs Windows Server 2022 and does <b>NOT</b> have a public IP address Connected to VNET1
Bastion1	Azure Bastion Basic SKU host connected to VNET1

Device1 has Azure PowerShell and Azure Command-Line Interface (CLI) installed.

From Device1, you need to establish a Remote Desktop connection to VM1.

Which three actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.

Actions	Answer Area
From Azure CLI on Device1, run az network bastion rdp.	
From Bastion1, enable Kerberos authentication.	
From VM1, enable just-in-time (JIT) VM access.	
From Bastion1, select <b>Native Client Support</b> .	
On Device1, run mstsc.exe.	
Upgrade Bastion1 to the Standard SKU.	



**Answer Area**

Upgrade Bastion1 to the Standard SKU.

From Bastion1, select **Native Client Support**.

From Azure CLI on Device1, run az network bastion rdp.

**Correct Answer:**

Question #121Topic 5

You have five Azure virtual machines that run Windows Server 2016. The virtual machines are configured as web servers.

You have an Azure load balancer named LB1 that provides load balancing services for the virtual machines.

You need to ensure that visitors are serviced by the same web server for each request.

What should you configure?

- A. Floating IP (direct server return) to Enabled
- B. Session persistence to Client IP
- C. Protocol to UDP
- D. Idle Time-out (minutes) to 20

**Correct Answer:** *B*

### **Topic 6 - Question Set 6**

#### **Question #1** *Topic 6*

You have an Azure subscription that has a Recovery Services vault named Vault1. The subscription contains the virtual machines shown in the following table:

Name	Operating system	Auto-shutdown
VM1	Windows Server 2012 R2	Off
VM2	Windows Server 2016	19:00
VM3	Ubuntu Server 18.04 LTS	Off
VM4	Windows 10	19:00

You plan to schedule backups to occur every night at 23:00.

Which virtual machines can you back up by using Azure Backup?

- A. VM1 and VM3 only
- B. VM1, VM2, VM3 and VM4
- C. VM1 and VM2 only
- D. VM1 only

**Correct Answer:** *B*

Azure Backup supports backup of 64-bit Windows server operating system from Windows Server 2008.

Azure Backup supports backup of 64-bit Windows 10 operating system.

Azure Backup supports backup of 64-bit Ubuntu Server operating system from Ubuntu 12.04. Azure Backup supports backup of VM that are shutdown or offline.

Reference: <https://docs.microsoft.com/en-us/azure/backup/backup-support-matrix-iaas>  
<https://docs.microsoft.com/en-us/azure/virtual-machines/linux/endorsed-distros>

#### **Question #2** *Topic 6 HOTSPOT*

-

You create a Recovery Services vault backup policy named Policy1 as shown in the following exhibit:

## Policy1

Associated items Delete Save Discard

### Backup schedule

\* Frequency      \* Time      \* Timezone

Daily 11:00 PM (UTC) Coordinated Universal Time

### Retention range

Retention of daily backup point

\* At                  For  
11:00 PM 30 Day(s)

Retention of weekly backup point

\* On                  \* At                  For  
Sunday 11:00 PM 10 Week(s)

Retention of monthly backup point

\* On                  \* At                  For  
1 11:00 PM 36 Month(s)

Retention of yearly backup point

\* In                  \* On                  \* At                  For  
March 1 11:00 PM 10 Year(s)

Use the drop-down menus to select the answer choice that completes each statement based on the information presented in the graphic.

NOTE: Each correct selection is worth one point.

Hot Area:

## Answer Area

The backup that occurs on Sunday, March 1, will be retained for [answer choice].

▼
30 days
10 weeks
36 months
10 years

The backup that occurs on Sunday, November 1, will be retained for [answer choice].

▼
30 days
10 weeks
36 months
10 years

Correct

Answer:

## Answer Area

The backup that occurs on Sunday, March 1, will be retained for [answer choice].

▼
30 days
10 weeks
36 months
10 years

The backup that occurs on Sunday, November 1, will be retained for [answer choice].

▼
30 days
10 weeks
36 months
10 years

Box 1: 10 years -

The yearly backup point occurs to 1 March and its retention period is 10 years.

Box 2: 36 months -

The monthly backup point occurs on the 1 of every month and its retention period is 36 months. st

Question #3 Topic 6

You have the Azure virtual machines shown in the following table:

Name	Azure region
VM1	West Europe
VM2	West Europe
VM3	North Europe
VM4	North Europe

You have a Recovery Services vault that protects VM1 and VM2.

You need to protect VM3 and VM4 by using Recovery Services. What should you do first?

- A. Create a new Recovery Services vault
- B. Create a storage account
- C. Configure the extensions for VM3 and VM4
- D. Create a new backup policy

**Correct Answer:** A

A Recovery Services vault is a storage entity in Azure that houses data. The data is typically copies of data, or configuration information for virtual machines (VMs), workloads, servers, or workstations. You can use Recovery Services vaults to hold backup data for various Azure services Reference:

<https://docs.microsoft.com/en-us/azure/site-recovery/azure-to-azure-tutorial-enable-replicatio>

Question #4 *Topic 6 HOTSPOT*

You have an Azure subscription that contains an Azure Storage account named storage1 and the users shown in the following table.

Name	Member of
User1	Group1
User2	Group2
User3	Group1

You plan to monitor storage1 and to configure email notifications for the signals shown in the following table.

Name	Type	Users to notify
Ingress	Metric	User1 and User3 only
Egress	Metric	User1 only
Delete storage account	Activity log	User1, User2, and User3
Restore blob ranges	Activity log	User1 and User3 only

You need to identify the minimum number of alert rules and action groups required for the planned monitoring.

How many alert rules and action groups should you identify? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

## Answer Area

Alert rules:

1
2
3
4

Action groups:

1
2
3
4

Correct

Answer:

## Answer Area

Alert rules:

1
2
3
4

Action groups:

1
2
3
4

Question #5 *Topic 6*

You have an Azure subscription that contains the identities shown in the following table.

Name	Type	Member of
User1	User	<i>None</i>
User2	User	Group1
Principal1	Managed identity	<i>None</i>
Principal2	Managed identity	Group1

User1, Principal1, and Group1 are assigned the Monitoring Reader role.

An action group named AG1 has the Email Azure Resource Manager Role notification type and is configured to email the Monitoring Reader role.

You create an alert rule named Alert1 that uses AG1.

You need to identify who will receive an email notification when Alert1 is triggered. Who should you identify?

- A. User1 and Principal1 only
- B. User1, User2, Principal1, and Principal2
- C. User1 only
- D. User1 and User2 only

**Correct Answer:**D

Email will only be sent to Azure AD user members of the Monitoring Reader role. Email will not be sent to Azure AD groups or service principals.

Reference:

<https://docs.microsoft.com/en-us/azure/azure-monitor/platform/action-groups>

Question #6 Topic 6

HOTSPOT -

You have an Azure virtual machine named VM1 and a Recovery Services vault named Vault1.

You create a backup policy named Policy1 as shown in the exhibit. (Click the Exhibit tab.)

## Policy1

Associated items   Delete   Save   Discard

---

**Backup schedule**

\* Frequency: Daily   \* Time: 2:00 AM   \* Timezone: (UTC) Coordinated Universal Time

---

**Retention range**

Retention of daily backup point.

\* At: 2:00 AM   For: 5 Day(s)

---

Retention of weekly backup point.

\* On: Sunday   \* At: 2:00 AM   For: 20 Week(s)

---

Retention of monthly backup point.

Week Based Day Based

\* On: 2   \* At: 2:00 AM   For: 24 Month(s)

---

Retention of yearly backup point.

Week Based Day Based

\* In: January   \* On: 9   \* At: 2:00 AM   For: 5 Year(s)

You configure the backup of VM1 to use Policy1 on Thursday, January 1 at 1:00 AM.

You need to identify the number of available recovery points for VM1.

How many recovery points are available on January 8 and January 15? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

## Answer Area

January 8 at 2:00 PM (14:00):

5
6
8
9

January 15 at 2:00 PM (14:00):

5
8
17
19

Correct

Answer:

## Answer Area

January 8 at 2:00 PM (14:00):

5
6
8
9

January 15 at 2:00 PM (14:00):

5
8
17
19

Box 1: 6 -

5 latest daily recovery points, which includes the weekly backup from the previous Sunday, plus the monthly recovery point.

Box 2: 8 -

5 latest daily recovery points, plus two weekly backups, plus the monthly recovery point.

Reference: <https://social.technet.microsoft.com/Forums/en-US/854ab6ae-79aa-4bad-ac65-471c4d422e94/daily-monthly-yearly-recovery-points-and-storage-used?forum=windowsazureonlinebackup>

Question #7Topic 6

HOTSPOT -

You have the web apps shown in the following table.

Name	Web framework	Hosting environment
App1	Microsoft ASP.NET	An on-premises physical server that runs Windows Server 2019 and has Internet Information Services (IIS) configured
App2	Microsoft ASP.NET Core	An Azure virtual machine that runs Windows Server 2019 and has Internet Information Services (IIS) configured

You need to monitor the performance and usage of the apps by using Azure Application Insights. The solution must minimize modifications to the application code.

What should you do on each app? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

## Answer Area

App1:

Install the Log Analytics agent	▼
Install the Azure Monitor agent	
Use the Application Insights SDK	
Install the Application Insights Agent	

App2:

Install the Log Analytics agent	▼
Install the Azure Monitor agent	
Use the Application Insights SDK	
Install the Application Insights Agent	

Correct

Answer:

## Answer Area

App1:

Install the Log Analytics agent
Install the Azure Monitor agent
Use the Application Insights SDK
Install the Application Insights Agent

App2:

Install the Log Analytics agent
Install the Azure Monitor agent
Use the Application Insights SDK
Install the Application Insights Agent

Reference: <https://docs.microsoft.com/en-us/azure/azure-monitor/app/azure-web-apps>

Question #8 Topic 6

You have an Azure virtual machine named VM1.

You use Azure Backup to create a backup of VM1 named Backup1.

After creating Backup1, you perform the following changes to VM1:

- A. Modify the size of VM1.
- B. Copy a file named Budget.xls to a folder named Data.
- C. Reset the password for the built-in administrator account.
- D. Add a data disk to VM1.

An administrator uses the Replace existing option to restore VM1 from Backup1.

You need to ensure that all the changes to VM1 are restored. Which change should you perform again?

- A. Modify the size of VM1.
- B. Reset the password for the built-in administrator account.
- C. Add a data disk.
- D. Copy Budget.xls to Data.

**Correct Answer:** D Reference: <https://docs.microsoft.com/en-us/azure/backup/about-azure-vm-restore>

Question #9 Topic 6 HOTSPOT -

You have an Azure Active Directory (Azure AD) tenant named contoso.onmicrosoft.com that contains the users shown in the following table.

Name	Member of	Role assigned
User1	Group1	<i>None</i>
User2	Group2	<i>None</i>
User3	Group1, Group2	User administrator

You enable password reset for contoso.onmicrosoft.com as shown in the Password Reset exhibit. (Click the Password Reset tab.)

Self service password reset enabled ⓘ

[None](#) **Selected** [All](#)

---

Select group >

Group2

---

**i** These settings only apply to end users in your organization. Admins are always enabled for self-service password reset and are required to use two authentication methods to reset their password. Click here to learn more about administrator password policies.

You configure the authentication methods for password reset as shown in the Authentication Methods exhibit. (Click the Authentication Methods tab.)

Number of methods required to reset ⓘ

1	2
---	---

Methods available to users

- Mobile app notification
- Mobile app code
- Email
- Mobile phone
- Office phone
- Security questions

Number of questions required to register ⓘ

3	4	5
---	---	---

Number of questions required to reset ⓘ

3	4	5
---	---	---

---

Select security questions >

10 security questions selected

---

**i** These settings only apply to end users in your organization. Admins are always enabled for self-service password reset and are required to use two authentication methods to reset their password. Click here to learn more about administrator password policies.

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point. Hot Area:

**Answer Area**

Statements	Yes	No
After User2 answers three security questions correctly, he can reset his password immediately.	<input type="radio"/>	<input type="radio"/>
If User1 forgets her password, she can reset the password by using the mobile phone app.	<input type="radio"/>	<input type="radio"/>
User3 can add security questions to the password reset process	<input type="radio"/>	<input type="radio"/>

**Correct**

**Answer:**

## Answer Area

Statements	Yes	No
After User2 answers three security questions correctly, he can reset his password immediately.	<input type="radio"/>	<input checked="" type="radio"/>
If User1 forgets her password, she can reset the password by using the mobile phone app.	<input type="radio"/>	<input checked="" type="radio"/>
User3 can add security questions to the password reset process	<input checked="" type="radio"/>	<input type="radio"/>

Box 1: No -

Two methods are required.

Box 2: No -

Self-service password reset is only enabled for Group2, and User1 is not a member of Group2.

Box 3: Yes -

As a User Administrator, User3 can add security questions to the reset process.

Reference: <https://docs.microsoft.com/en-us/azure/active-directory/authentication/quickstart-sspr>

<https://docs.microsoft.com/en-us/azure/active-directory/authentication/active-directory-passwords-faq>

Question #10Topic 6

Your company has a main office in London that contains 100 client computers.

Three years ago, you migrated to Azure Active Directory (Azure AD).

The company's security policy states that all personal devices and corporate-owned devices must be registered or joined to Azure AD.

A remote user named User1 is unable to join a personal device to Azure AD from a home network.

You verify that User1 was able to join devices to Azure AD in the past.

You need to ensure that User1 can join the device to Azure AD. What should you do?

- A. Assign the User administrator role to User1.
- B. From the Device settings blade, modify the Maximum number of devices per user setting.
- C. Create a point-to-site VPN from the home network of User1 to Azure.
- D. From the Device settings blade, modify the Users may join devices to Azure AD setting.

**Correct Answer: B**

The Maximum number of devices setting enables you to select the maximum number of devices that a user can have in Azure AD. If a user reaches this quota, they will not be able to add additional devices until one or more of the existing devices are removed.

Incorrect Answers:

C: Azure AD Join enables users to join their devices to Active Directory from anywhere as long as they have connectivity with the Internet.

D: The Users may join devices to Azure AD setting enables you to select the users who can join devices to Azure AD. Options are All, Selected and None. The default is All.

Reference: <https://docs.microsoft.com/en-us/azure/active-directory/devices/device-management-azure-portal> <http://techgenix.com/pros-and-cons-azure-ad-join/>

Question #11 Topic 6 HOTSPOT

You have two Azure App Service app named App1 and App2. Each app has a production deployment slot and a test deployment slot.

The Backup Configuration settings for the production slots are shown in the following table.

App	Backup Every	Start backup schedule from	Retention (Days)	Keep at least one backup
App1	1 Days	January 6, 2021	0	Yes
App2	1 Days	January 6, 2021	30	Yes

For each of the following statements, select Yes if the statement is true. Otherwise, select No. NOTE: Each correct selection is worth one point.

Hot Area:

### Answer Area

Statements	Yes	No
On January 15, 2021, App1 will have only one backup in storage.	<input type="radio"/>	<input type="radio"/>
On February 6, 2021, you can access the backup of the App2 test slot from January 15, 2021.	<input type="radio"/>	<input type="radio"/>
On January 15, 2021, you can restore the App2 production slot backup from January 6 to the App2 test slot.	<input type="radio"/>	<input type="radio"/>

Correct

Answer:

### Answer Area

Statements	Yes	No
On January 15, 2021, App1 will have only one backup in storage.	<input checked="" type="radio"/>	<input type="radio"/>
On February 6, 2021, you can access the backup of the App2 test slot from January 15, 2021.	<input checked="" type="radio"/>	<input type="radio"/>
On January 15, 2021, you can restore the App2 production slot backup from January 6 to the App2 test slot.	<input checked="" type="radio"/>	<input type="radio"/>

Question #12 Topic 6

HOTSPOT -

You have an Azure subscription that contains an Azure Active Directory (Azure AD) tenant named contoso.com. The tenant is synced to the on-premises Active Directory domain. The domain contains the users shown in the following table.

Name	Role
SecAdmin1	Security administrator
BillAdmin1	Billing administrator
User1	Reports reader

You enable self-service password reset (SSPR) for all users and configure SSPR to have the following authentication methods:

- ⊖ Number of methods required to reset: 2
- ⊖ Methods available to users: Mobile phone, Security questions
- ⊖ Number of questions required to register: 3
- ⊖ Number of questions required to reset: 3

You select the following security questions:

- ⊖ What is your favorite food?
- ⊖ In what city was your first job?
- ⊖ What was the name of your first pet?

For each of the following statements, select Yes if the statement is true. Otherwise, select No. NOTE: Each correct selection is worth one point.

Hot Area:

### Answer Area

Statements	Yes	No
SecAdmin1 must answer the following question during the self-service password reset: In what city was your first job?	<input type="radio"/>	<input type="radio"/>
BillAdmin1 must answer the following question during the self-service password reset: What is your favorite food?	<input type="radio"/>	<input type="radio"/>
User1 must answer the following question during the self-service password reset: What was the name of your first pet?	<input type="radio"/>	<input type="radio"/>

Answer:

### Answer Area

Statements	Yes	No
SecAdmin1 must answer the following question during the self-service password reset: In what city was your first job?	<input type="radio"/>	<input checked="" type="radio"/>
BillAdmin1 must answer the following question during the self-service password reset: What is your favorite food?	<input checked="" type="radio"/>	<input type="radio"/>
User1 must answer the following question during the self-service password reset: What was the name of your first pet?	<input checked="" type="radio"/>	<input type="radio"/>

Box 1: No -

Administrator accounts are special accounts with elevated permissions. To secure them, the following restrictions apply to changing passwords of administrators:

On-premises enterprise administrators or domain administrators cannot reset their password through Self-service password reset (SSPR). They can only change their password in their on-premises environment. Thus, we recommend not syncing on-prem AD admin accounts to Azure AD. An administrator cannot use secret

Questions & Answers as a method to reset password.

Box 2: Yes -

Self-service password reset (SSPR) is an Azure Active Directory feature that enables employees to reset their passwords without needing to contact IT staff.

Box 3: Yes - Reference: <https://docs.microsoft.com/en-us/azure/active-directory/authentication/howto-sspr-deployment>

Question #13 *Topic 6*

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have an Azure subscription that contains the following users in an Azure Active Directory tenant named contoso.onmicrosoft.com:

Name	Role	Scope
User1	Global administrator	Azure Active Directory
User2	Global administrator	Azure Active Directory
User3	User administrator	Azure Active Directory
User4	Owner	Azure Subscription

User1 creates a new Azure Active Directory tenant named external.contoso.onmicrosoft.com.

You need to create new user accounts in external.contoso.onmicrosoft.com.

Solution: You instruct User1 to create the user accounts. Does that meet the goal?

- A. Yes
- B. No

**Correct Answer: A**

Only a global administrator can add users to this tenant.

Reference:

<https://docs.microsoft.com/en-us/azure/devops/organizations/accounts/add-users-to-azure-ad>

Question #14 *Topic 6*

You have an existing Azure subscription that contains 10 virtual machines.

You need to monitor the latency between your on-premises network and the virtual machines. What should you use?

- A. Service Map
- B. Connection troubleshoot

- C. Network Performance Monitor
- D. Effective routes

**Correct Answer: C**

Network Performance Monitor is a cloud-based hybrid network monitoring solution that helps you monitor network performance between various points in your network infrastructure. It also helps you monitor network connectivity to service and application endpoints and monitor the performance of Azure ExpressRoute.

You can monitor network connectivity across cloud deployments and on-premises locations, multiple data centers, and branch offices and mission-critical multitier applications or microservices. With Performance Monitor, you can detect network issues before users complain.

Reference:

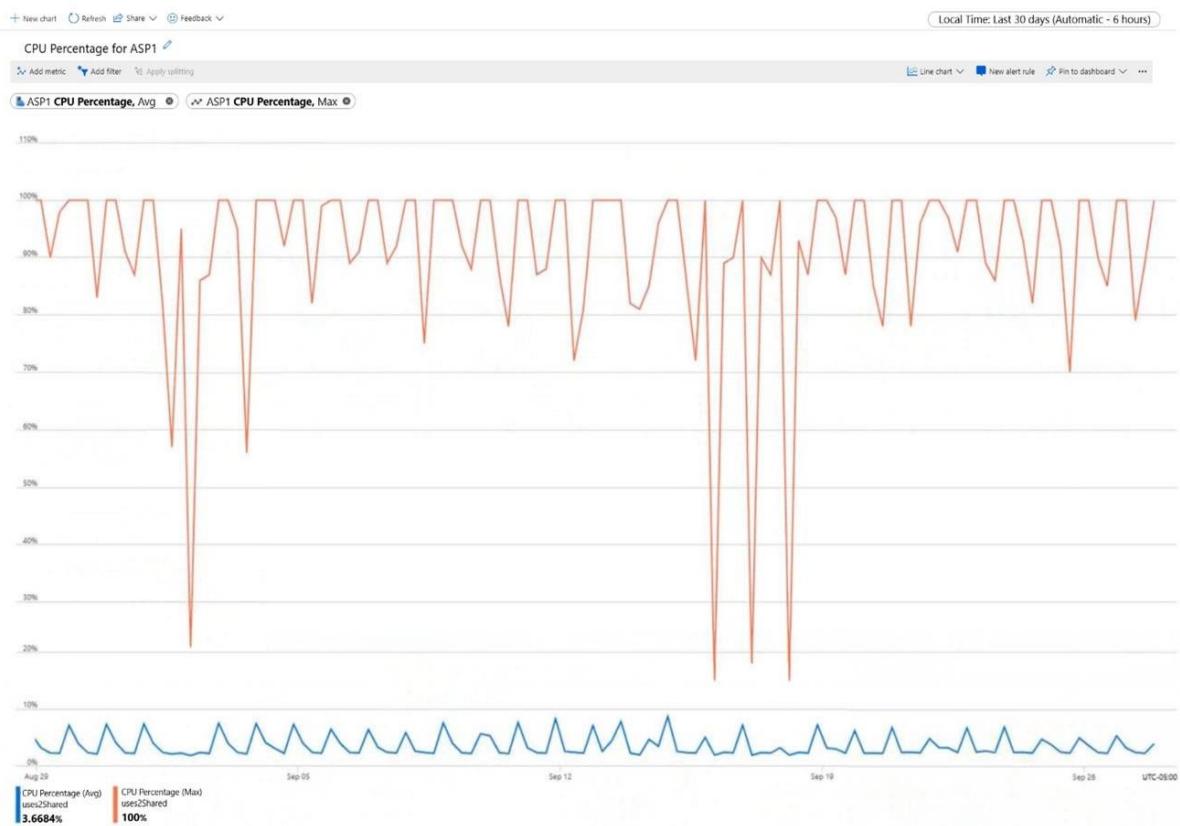
<https://docs.microsoft.com/en-us/azure/azure-monitor/insights/network-performance-monitor>

**Question #15 Topic 6**

HOTSPOT -

You have an Azure App Service plan named ASP1.

CPU usage for ASP1 is shown in the following exhibit.



Use the drop-down menus to select the answer choice that completes each statement based on the information presented in the graphic.

NOTE: Each correct selection is worth one point.

Hot Area:

## Answer Area

The average CPU percentage is calculated [answer choice] per day

	▼
once	
four times	
six times	
24 times	

ASP1 must be [answer choice] to optimize CPU usage

	▼
scaled up	
scaled down	
scaled out	

Correct

Answer:

## Answer Area

The average CPU percentage is calculated [answer choice] per day

	▼
once	
four times	
six times	
24 times	

ASP1 must be [answer choice] to optimize CPU usage

	▼
scaled up	
scaled down	
scaled out	

Box 1: four times -

From the exhibit we see that the time granularity is 6 hours: Last 30 days (Automatic - 6 hours).

CPU Percentage Last days Automatic - hours

Box 2: scaled up - Scale

up when:

\* You see that your workloads are hitting some performance limit such as CPU or I/O limits. \* You need to quickly react to fix performance issues that can't be solved with classic database optimization.

\* You need a solution that allows you to change service tiers to adapt to changing latency requirements. Reference:

<https://docs.microsoft.com/en-us/azure/azure-monitor/essentials/metrics-troubleshoot>

<https://azure.microsoft.com/en-us/overview/scaling-out-vs-scaling-up>

Question #16 Topic 6

DRAG DROP -

You have an Azure Linux virtual machine that is protected by Azure Backup.

One week ago, two files were deleted from the virtual machine.

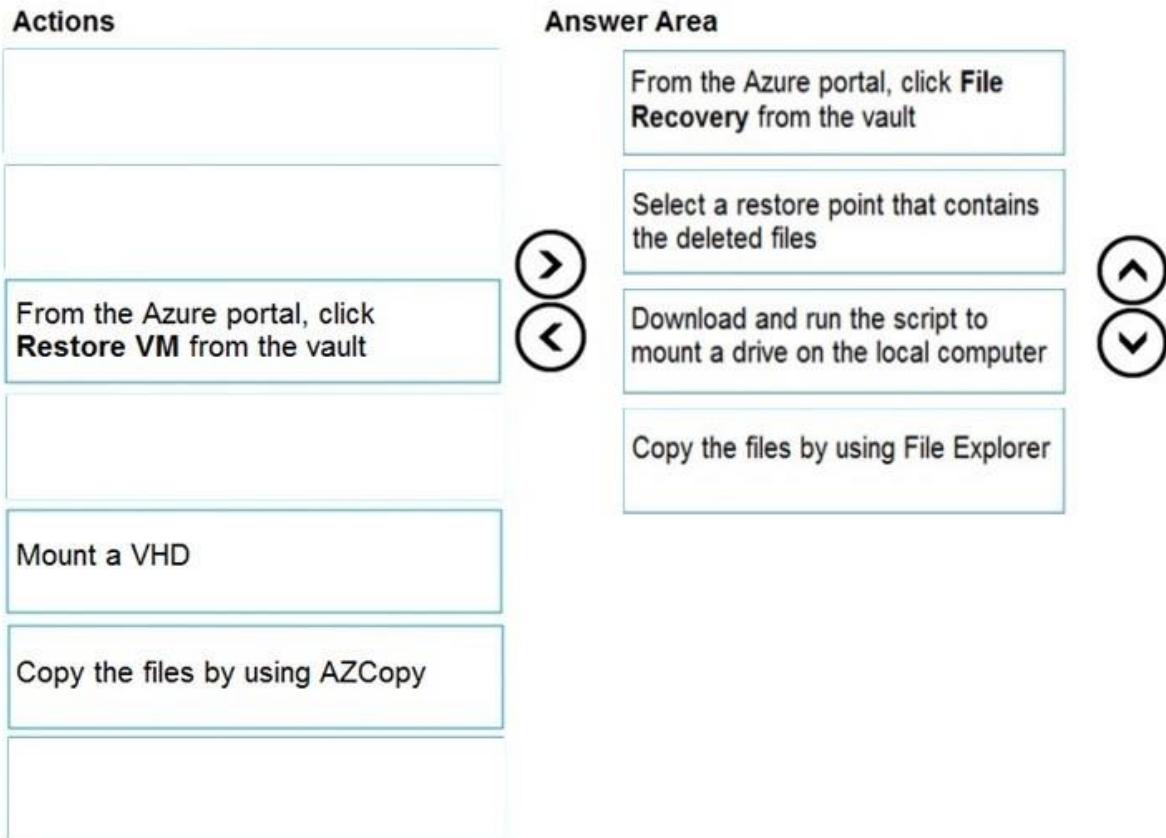
You need to restore the deleted files to an on-premises Windows Server 2016 computer as quickly as possible.

Which four actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order. Select and Place:

Actions	Answer Area
Download and run the script to mount a drive on the local computer	
Select a restore point that contains the deleted files	 
From the Azure portal, click <b>Restore VM from the vault</b>	
From the Azure portal, click <b>File Recovery</b> from the vault	
Mount a VHD	
Copy the files by using AZCopy	
Copy the files by using File Explorer	

Correct

Answer:



Step 1: From the Azure portal, click File Recovery from the vault

Step 2. Select a restore point that contains the deleted files

Step 3: Download and run the script to mount a drive on the local computer Generate and download script to browse and recover files:

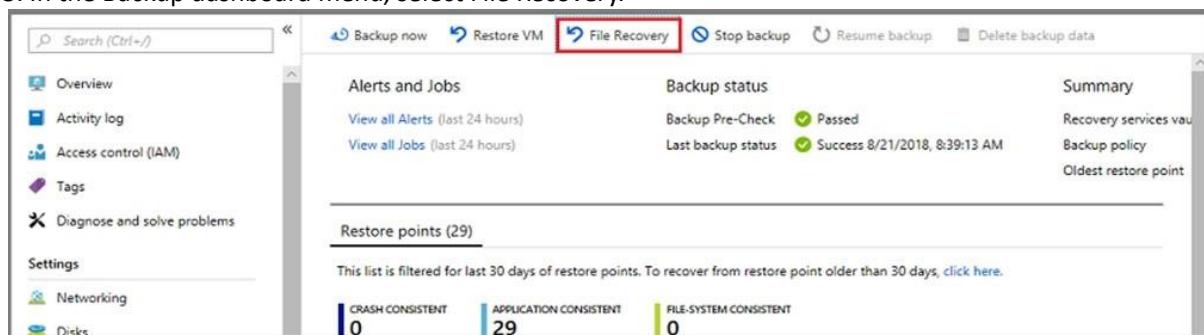
Step 4: Copy the files using File Explorer!

After the disks are attached, use Windows File Explorer to browse the new volumes and files. The restore files functionality provides access to all files in a recovery point. Manage the files via File Explorer as you would for normal files.

Step 1-3 below:

To restore files or folders from the recovery point, go to the virtual machine and perform the following steps:

1. Sign in to the Azure portal and in the left pane, select Virtual machines. From the list of virtual machines, select the virtual machine to open that virtual machine's dashboard.
2. In the virtual machine's menu, select Backup to open the Backup dashboard.
3. In the Backup dashboard menu, select File Recovery.



The File Recovery menu opens.

## File Recovery

myvmh1

✓ Step 1: Select recovery point

8/2/2020, 11:31:09 AM [Latest] (Cras... ▾)

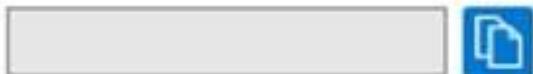
---

→ Step 2: Download script to browse and recover files

This script will mount the disks from the selected recovery point **as local drives on the machine where it is run**. These drives will remain mounted for 12 hours.

[Download Script \\*](#)

Requires password to run



---

→ Step 3: Unmount the disks after recovery

Unmount disks and close the connection to the recovery point.

[Unmount Disks](#)

4. From the Select recovery point drop-down menu, select the recovery point that holds the files you want. By default, the latest recovery point is already selected.
5. Select Download Executable (for Windows Azure VMs) or Download Script (for Linux Azure VMs, a python script is generated) to download the software used to copy files from the recovery point.

Running the script and identifying volumes:

For Linux machines, a python script is generated. Download the script and copy it to the relevant/compatible Linux server.

Reference: <https://docs.microsoft.com/en-us/azure/backup/backup-azure-restore-files-from-vm>  
<https://docs.microsoft.com/en-us/azure/backup/backup-azure-vms-automation#restore-files-from-anazure-vm-backup> Question #17 Topic 6

HOTSPOT -

You purchase a new Azure subscription named Subscription1.

You create a virtual machine named VM1 in Subscription1. VM1 is not protected by Azure Backup. You need to protect VM1 by using Azure Backup. Backups must be created at 01:00 and stored for 30 days.

What should you do? To answer, select the appropriate options in the answer area. NOTE:

Each correct selection is worth one point.

Hot Area:

## Answer Area

Location in which to store the backups:

A blob container
A file share
A Recovery Services vault
A storage account

Object to use to configure the protection for VM1:

A backup policy
A batch job
A batch schedule
A recovery plan

Correct

Answer:

## Answer Area

Location in which to store the backups:

A blob container
A file share
A Recovery Services vault
A storage account

Object to use to configure the protection for VM1:

A backup policy
A batch job
A batch schedule
A recovery plan

Box 1: A Recovery Services vault

You can set up a Recovery Services vault and configure backup for multiple Azure VMs.

Box 2: A backup policy -

In Choose backup policy, do one of the following:

- Leave the default policy. This backs up the VM once a day at the time specified, and retains backups in the vault for 30 days.
- Select an existing backup policy if you have one.
- Create a new policy, and define the policy settings.

Reference: <https://docs.microsoft.com/en-us/azure/backup/backup-azure-vms-first-look-arm>

Question #18 Topic 6

You have an Azure virtual machine named VM1.

Azure collects events from VM1.

You are creating an alert rule in Azure Monitor to notify an administrator when an error is logged in the System event log of VM1.

Which target resource should you monitor in the alert rule?

- A. virtual machine extension
- B. virtual machine
- C. metric alert
- D. Azure Log Analytics workspace

**Correct Answer: D**

For the first step to create the new alert rule, under the Create Alert section, you are going to select your Log Analytics workspace as the resource, since this is a log based alert signal.

Reference:

<https://docs.microsoft.com/en-us/windows-server/storage/storage-spaces/configure-azure-monitor>

Question #19 Topic 6

You have an Azure subscription that contains 100 virtual machines.

You regularly create and delete virtual machines.

You need to identify unattached disks that can be deleted. What should you do?

- A. From Azure Cost Management, view Cost Analysis
- B. From Azure Advisor, modify the Advisor configuration
- C. From Microsoft Azure Storage Explorer, view the Account Management properties
- D. From Azure Cost Management, view Advisor Recommendations

**Correct Answer: D**

From Home > Cost Management + Billing > Cost Management, scroll down on the options and select View Recommendations:

The screenshot shows the Azure Cost Management + Billing interface. On the left, there's a navigation sidebar with sections like Overview, Access control, Diagnose and solve problems, Cost Management (which is selected), Products + services, Settings, Configuration, Exports, and Support + troubleshooting. The main area has three main sections: 'Analyze cloud costs' (with a 'Learn more' link and a 'Open cost analysis' button), 'Monitor with budgets' (with a 'Create budget' button), and 'Optimize with recommendations' (with a 'Learn more' link and a 'View recommendations' button). The 'View recommendations' button is circled in red.

Azure Cost Management / Advisor -

From here you will see the recommendations for your subscription, if you have orphaned disks, they will be listed. Reference: <https://codeserendipity.com/2020/07/08/microsoft-azure-find-unattached-disks-that-can-be-deletedand-other-recommendations/>

Question #20Topic 6

You have an Azure web app named webapp1.

Users report that they often experience HTTP 500 errors when they connect to webapp1.

You need to provide the developers of webapp1 with real-time access to the connection errors. The solution must provide all the connection error details. What should you do first?

- A. From webapp1, enable Web server logging
- B. From Azure Monitor, create a workbook
- C. From Azure Monitor, create a Service Health alert
- D. From webapp1, turn on Application Logging

**Correct Answer: A**

Question #21 Topic 6

You have an Azure web app named App1.

You need to monitor the availability of App1 by using a multi-step web test. What should you use in Azure Monitor?

- A. Azure Service Health
- B. Azure Application Insights
- C. the Diagnostic settings
- D. metrics

**Correct Answer:** B

Upload the web test -

1. In the Application Insights portal on the Availability pane select Add Classic test, then select Multi-step as the SKU.
2. Upload your multi-step web test.
3. Set the test locations, frequency, and alert parameters.
4. Select Create.

Reference:

<https://docs.microsoft.com/en-us/azure/azure-monitor/app/availability-multistep>

Question #22 Topic 6 HOTSPOT

You have an Azure subscription that has diagnostic logging enabled and is configured to send logs to a Log Analytics workspace.

You are investigating a service outage.

You need to view the event time, the event name, and the affected resources.

How should you complete the query? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point. Hot Area:

**Answer Area**

AzureActivity
Heartbeat
NetworkMonitoring
Perf

| Where Level == 'Critical'

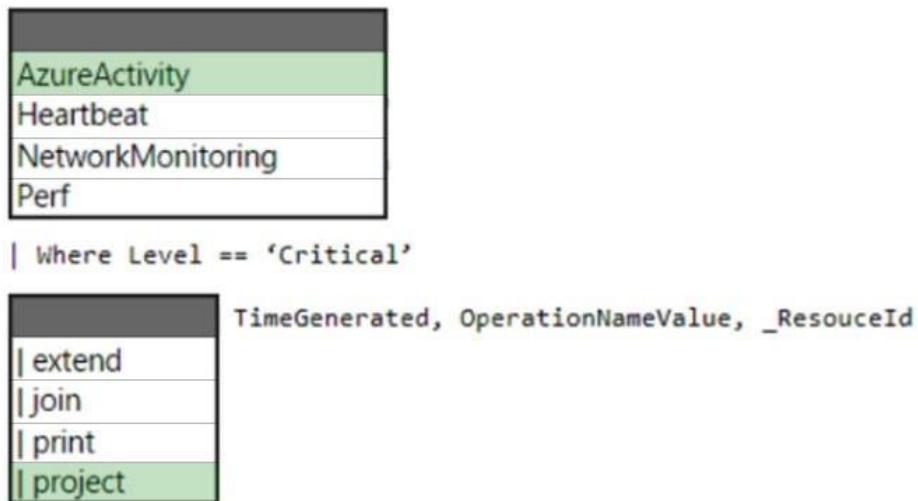
extend
join
print
project

TimeGenerated, OperationNameValue, \_ResourceId

**Correct**

**Answer:**

## Answer Area



Box 1: AzureActivity -

The AzureActivity table has entries from the Azure activity log, which provides insight into subscriptionlevel or management group-level events occurring in Azure.

Let's see only Critical entries during a specific week.

The where operator is common in the Kusto Query Language. where filters a table to rows that match specific criteria. The following example uses multiple commands. First, the query retrieves all records for the table. Then, it filters the data for only records that are in the time range. Finally, it filters those results for only records that have a Critical level.

AzureActivity -

```
| where TimeGenerated > datetime(10-01-2020) and TimeGenerated < datetime(10-07-2020)
| where Level == 'Critical' Incorrect:
```

not Perf: The Perf table has performance data that's collected from virtual machines that run the Log Analytics agent.

Box 2: | project -

Select a subset of columns: project.

Use project to include only the columns you want. Building on the preceding example, let's limit the output to certain columns:

AzureActivity -

```
| where TimeGenerated > datetime(10-01-2020) and TimeGenerated < datetime(10-07-2020) |
where Level == 'Critical'
| project TimeGenerated, Level, OperationNameValue, ResourceGroup, _Resourceld Reference:
https://github.com/MicrosoftDocs/dataexplorer-docs/blob/main/data-explorer/kusto/query/tutorial.md
```

Question #23 Topic 6

You have a Recovery Services vault named RSV1. RSV1 has a backup policy that retains instant snapshots for five days and daily backup for 14 days.

RSV1 performs daily backups of VM1. VM1 hosts a static website that was updated eight days ago.

You need to recover VM1 to a point eight days ago. The solution must minimize downtime. What should you do first?

- A. Deallocate VM1.
- B. Restore VM1 by using the Replace existing restore configuration option.
- C. Delete VM1.

- D. Restore VM1 by using the Create new restore configuration option.

**Correct Answer:**D Replace

existing:

You can restore a disk, and use it to replace a disk on the existing VM.

The current VM must exist. If it's been deleted, this option can't be used.

Azure Backup takes a snapshot of the existing VM before replacing the disk, and stores it in the staging location you specify. Existing disks connected to the VM are replaced with the selected restore point.

The snapshot is copied to the vault, and retained in accordance with the retention policy.

After the replace disk operation, the original disk is retained in the resource group. You can choose to manually delete the original disks if they aren't needed.

Reference:

<https://docs.microsoft.com/en-us/azure/backup/backup-azure-arm-restore-vms>

Question #24 Topic 6

HOTSPOT -

You have an Azure subscription that contains the resources shown in the following table.

Name	Type
VM1	Virtual machine
storage1	Storage account
Workspace1	Log Analytics workspace
DB1	Azure SQL database

You plan to create a data collection rule named DCR1 in Azure Monitor.

Which resources can you set as data sources in DCR1, and which resources can you set as destinations in DCR1? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

## Answer Area

Data sources:

VM1 only
VM1 and storage1 only
VM1, storage1, and DB1 only
VM1, storage1, Workspace1, and DB1

Destinations:

storage1 only
Workspace1 only
Workspace1 and storage1 only
Workspace1, storage1, and DB1 only

Correct  
Answer:

## Answer Area

Data sources:

VM1 only
VM1 and storage1 only
VM1, storage1, and DB1 only
VM1, storage1, Workspace1, and DB1

Destinations:

storage1 only
Workspace1 only
Workspace1 and storage1 only
Workspace1, storage1, and DB1 only

Box 1: VM1 only -

A virtual machine may have an association to multiple DCRs, and a DCR may have multiple virtual machines associated to it.

In the Resources tab, add the resources (virtual machines, virtual machine scale sets, Arc for servers) that should have the Data Collection Rule applied.

Box 2: Workspace1 only -

On the Destination tab, add one or more destinations for the data source. You can select multiple destinations of same or different types, for instance multiple Log Analytics workspaces (i.e. "multi-homing").

Note: The Data Collection Rules (or DCR) improve on a few key areas of data collection from VMs including like better control and scoping of data collection (e.g. collect from a subset of VMs for a single workspace), collect once and send to both Log Analytics and Azure Monitor Metrics, send to multiple workspaces (multi-homing for Linux), improved Windows event filtering, and improved extension management.

Reference: <https://docs.microsoft.com/en-us/azure/azure-monitor/agents/data-collection-rule-azure-monitor-agent> Question #25 Topic 6 HOTSPOT -

You have the role assignment file shown in the following exhibit.

```
[  
  {  
    "RoleAssignmentId": "e3108585-0e5d-4572-91a3-aa5d2df73999",  
    "Scope": "/subscriptions/fb960108-fcdc-499b-886e-d9c31d3f26ff",  
    "DisplayName": "User1",  
    "SignInName": "User1@contoso.onmicrosoft.com",  
    "RoleDefinitionName": "Owner",  
    ...  
  },  
  {  
    "RoleAssignmentId": "3bab4763-16a9-4d5d-9fcf-eee0cc31a21e",  
    "Scope": "/subscriptions/fb960108-fcdc-499b-886e-d9c31d3f26ff/resourceGroups/RG2",  
    "DisplayName": "User2",  
    "SignInName": "User2@contoso.onmicrosoft.com",  
    "RoleDefinitionName": "Owner",  
    ...  
  },  
  {  
    "RoleAssignmentId": "a071c023-40a3-4b7f-8680-1109b40270c5",  
    "Scope": "/subscriptions/fb960108-fcdc-499b-886e-d9c31d3f26ff/resourceGroups/RG1/providers/  
Microsoft.Compute/virtualMachines/VM1",  
    "DisplayName": "User3",  
    "SignInName": "User3@contoso.onmicrosoft.com",  
    "RoleDefinitionName": "Owner",  
    ...  
  },  
  {  
    "RoleAssignmentId": "c5b9e7da-76d4-4888-93b5-8afb2bb780b4",  
    "Scope": "/subscriptions/fb960108-fcdc-499b-886e-d9c31d3f26ff/resourceGroups/RG1",  
    "DisplayName": "User4",  
    "SignInName": "User4@contoso.onmicrosoft.com",  
    "RoleDefinitionName": "Contributor",  
    ...  
  }  
]
```

Use the drop-down menus to select the answer choice that completes each statement based on the information presented in the graphic.

NOTE: Each correct selection is worth one point.

Hot Area:

### Answer Area

[Answer choice] assigned the Owner role for VM1

▼
User3 is
User3 and User4 are
User1 and User3 are
User1, User3, and User4 are
User1, User2, User3, and User4

[Answer choice] can create a virtual machine in RG1

▼
User1 and User4
User1, User2, and User3
User1, User2, and User4
User1, User3, and User4
User1, User2, User3, and User4

Correct

Answer:

### Answer Area

[Answer choice] assigned the Owner role for VM1

▼
User3 is
User3 and User4 are
User1 and User3 are
User1, User3, and User4 are
User1, User2, User3, and User4

[Answer choice] can create a virtual machine in RG1

▼
User1 and User4
User1, User2, and User3
User1, User2, and User4
User1, User3, and User4
User1, User2, User3, and User4

Question #26Topic 6

HOTSPOT -

You have the following custom role-based access control (RBAC) role.

```
{
  "id": "b988327b-7dae-4d00-8925-1cc14fd68be4",
  "properties": {
    "roleName": "Role1",
    "description": "",
    "assignableScopes": [
      "/subscriptions/c691ad84-99f2-42fd-949b-58afd7ef6ab3"
    ],
    "permissions": [
      {
        "actions": [
          "Microsoft.Resources/subscription/resourceGroups/resources/read",
          "Microsoft.Resources/subscription/resourceGroups/read",
          "Microsoft.Resourcehealth/*",
          "Microsoft.Authorization/*/read",
          "Microsoft.Compute/*/read",
          "Microsoft.Support/*",
          "Microsoft.Authorization/*/read",
          "Microsoft.Network/virtualNetworks/read",
          "Microsoft.Resources/deployments/*",
          "Microsoft.Resources/subscription/resourceGroups/read",
          "Microsoft.Storage/storageAccounts/read",
          "Microsoft.Compute/virtualMachines/start/action",
          "Microsoft.Compute/virtualMachines/powerOff/action",
          "Microsoft.Compute/virtualMachines/deallocate/action",
          "Microsoft.Compute/virtualMachines/restart/action",
          "Microsoft.Compute/virtualMachines/*",
          "Microsoft.Compute/disks/*",
          "Microsoft.Compute/availabilitySets/*",
          "Microsoft.Network/virtualNetworks/subnets/join/action",
          "Microsoft.Network/virtualNetworks/subnets/read",
          "Microsoft.Network/virtualNetworks/subnets/virtualMachines/read",
          "Microsoft.Network/networkInterfaces/*",
          "Microsoft.Compute/snapshots/*"
        ]
      },
      {
        "notAction": [
          "Microsoft.Authorization/*/Delete",
          "Microsoft.Authorization/*/Write",
          "Microsoft.Authorization/elevateAccess/Action"
        ]
      }
    ]
  }
}
```

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point. Hot Area:

#### **Answer Area**

Statements	Yes	No
Users that are assigned Role1 can assign Role1 to users.	<input type="radio"/>	<input type="radio"/>
Users that are assigned Role1 can deploy new virtual machines.	<input type="radio"/>	<input type="radio"/>
Users that are assigned Role1 can set a static IP address on a virtual machine.	<input type="radio"/>	<input type="radio"/>

**Correct**

**Answer:**

## Answer Area

Statements	Yes	No
Users that are assigned Role1 can assign Role1 to users.	<input type="radio"/>	<input checked="" type="radio"/>
Users that are assigned Role1 can deploy new virtual machines.	<input type="radio"/>	<input checked="" type="radio"/>
Users that are assigned Role1 can set a static IP address on a virtual machine.	<input checked="" type="radio"/>	<input type="radio"/>

### Question #27Topic 6

HOTSPOT -

You have an Azure subscription that contains the resources shown in the following table.

Name	Type	Description
VNET1	Virtual network	Contains subnet1 and subnet2
subnet1	Subnet	IP address space 10.3.0.0/24
subnet2	Subnet	IP address space 10.4.0.0/24
NSG1	Network security group (NS)	None
vm1	Virtual machine	IP address 10.3.0.15
vm2	Virtual machine	IP address 10.4.0.16
storage1	Storage account	None

NSG1 is configured as shown in the following exhibit.

^ Essentials JSON View

Resource group (change) : RG1  
Location : East US 2  
Subscription (change) : Microsoft Azure Sponsorship  
Subscription ID :  
Tags (change) : Click here to add tags

Custom security rules : 1 inbound, 2 outbound  
Associated with : 1 subnets, 0 network interfaces

▼ Inbound security rules

Priority	Name	Port	Protocol	Source	Destination	Action
110	HTTPS_VM1_Deny	443	TCP	Internet	10.3.0.15	<input checked="" type="radio"/> Deny
65000	AllowVnetInBound	Any	Any	VirtualNetwork	VirtualNetwork	<input checked="" type="radio"/> Allow
65001	AllowAzureLoadBalancerInBound	Any	Any	AzureLoadBalancer	Any	<input checked="" type="radio"/> Allow
65500	DenyAllInBound	Any	Any	Any	Any	<input checked="" type="radio"/> Deny

▼ Outbound security rules

Priority	Name	Port	Protocol	Source	Destination	Action
145	Storage_Access	443	TCP	VirtualNetwork	Storage	<input checked="" type="radio"/> Allow
150	Block_Internet	Any	Any	VirtualNetwork	Internet	<input checked="" type="radio"/> Deny
65000	AllowVnetOutBound	Any	Any	VirtualNetwork	VirtualNetwork	<input checked="" type="radio"/> Allow
65001	AllowInternetOutBound	Any	Any	Any	Internet	<input checked="" type="radio"/> Allow
65500	DenyAllOutBound	Any	Any	Any	Any	<input checked="" type="radio"/> Deny

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point.

Hot Area:

### Answer Area

Statements	Yes	No
VM1 can access storage1.	<input type="radio"/>	<input type="radio"/>
VM2 can access VM1 by using the HTTPS protocol.	<input type="radio"/>	<input type="radio"/>
The security rules for NSG1 apply to any virtual machine on VNET1.	<input type="radio"/>	<input type="radio"/>

Correct

Answer:

### Answer Area

Statements	Yes	No
VM1 can access storage1.	<input checked="" type="radio"/>	<input type="radio"/>
VM2 can access VM1 by using the HTTPS protocol.	<input type="radio"/>	<input checked="" type="radio"/>
The security rules for NSG1 apply to any virtual machine on VNET1.	<input type="radio"/>	<input checked="" type="radio"/>

Question #28Topic 6

You have an Azure subscription named Subscription1 that contains two Azure virtual networks named VNet1 and VNet2. VNet1 contains a VPN gateway named VPNGW1 that uses static routing. There is a site-to-site VPN connection between your on-premises network and VNet1.

On a computer named Client1 that runs Windows 10, you configure a point-to-site VPN connection to VNet1.

You configure virtual network peering between VNet1 and VNet2. You verify that you can connect to VNet2 from the on-premises network. Client1 is unable to connect to VNet2.

You need to ensure that you can connect Client1 to VNet2. What should you do?

- A. Select Use the remote virtual network's gateway or Route Server on VNet1 to VNet2 peering.
- B. Select Use the remote virtual network's gateway or Route Server on VNet2 to VNet1 peering.
- C. Download and re-install the VPN client configuration package on Client1.
- D. Enable BGP on VPNGW1.

Correct Answer: C

Question #29Topic 6

HOTSPOT -

You have two Azure subscriptions named Sub1 and Sub2. Sub1 is in a management group named MG1. Sub2 is in a management group named MG2.

You have the resource groups shown in the following table.

Name	Subscription
RG1	Sub1
RG2	Sub2

You have the virtual machines shown in the following table.

Name	Resource group
VM1	RG1
VM2	RG2
VM3	RG2

You assign roles to users as shown in the following table.

User	Role	Resource
User1	Virtual Machine Contributor	MG1
User1	Virtual Machine User Login	Sub2
User2	Virtual Machine Contributor	MG2
User2	Virtual Machine User Login	Sub1
User2	Virtual Machine User Login	VM3

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point. Hot Area:

**Answer Area**

Statements	Yes	No
User1 can sign in to VM1.	<input type="radio"/>	<input type="radio"/>
User2 can manage disks and disk snapshots of VM1.	<input type="radio"/>	<input type="radio"/>
User2 can manage disks and disk snapshots of VM3.	<input type="radio"/>	<input type="radio"/>

Correct

Answer:

## Answer Area

Statements	Yes	No
User1 can sign in to VM1.	<input checked="" type="radio"/>	<input type="radio"/>
User2 can manage disks and disk snapshots of VM1.	<input type="radio"/>	<input checked="" type="radio"/>
User2 can manage disks and disk snapshots of VM3.	<input type="radio"/>	<input checked="" type="radio"/>

### Question #30 Topic 6

You have an Azure Active Directory (Azure AD) tenant that is linked to 10 Azure subscriptions. You need to centrally monitor user activity across all the subscriptions. What should you use?

- A. Azure Application Insights Profiler
- B. access reviews
- C. Activity log filters
- D. a Log Analytics workspace

**Correct Answer:** D

### Question #31 Topic 6

DRAG DROP -

You have an Azure subscription that contains a virtual machine name VM1.

VM1 has an operating system disk named Disk1 and a data disk named Disk2.

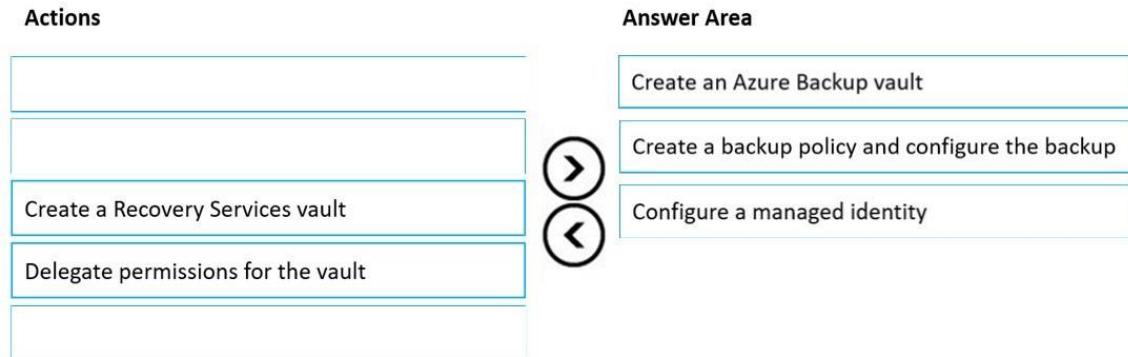
You need to back up Disk2 by using Azure Backup.

Which three actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order. Select and Place:

Actions	Answer Area
Configure a managed identity	
Create an Azure Backup vault	
Create a Recovery Services vault	
Delegate permissions for the vault	
Create a backup policy and configure the backup	

**Correct**

**Answer:**



**Question #32Topic 6**

You have a subnet named Subnet1 that contains Azure virtual machines. A network security group (NSG) named NSG1 is associated to Subnet1. NSG1 only contains the default rules.

You need to create a rule in NSG1 to prevent the hosts on Subnet1 from connecting to the Azure portal. The hosts must be able to connect to other internet hosts. To what should you set Destination in the rule?

- A. Application security group
- B. IP Addresses
- C. Service Tag
- D. Any

**Correct Answer: C**

**Question #33Topic 6**

You have an Azure subscription named Subscription1 that contains an Azure Log Analytics workspace named Workspace1.

You need to view the error events from a table named Event. Which query should you run in Workspace1?

- A. search in (Event) "error"
- B. Event | where EventType is "error"
- C. select \* from Event where EventType == "error"
- D. Get-Event Event | where {\$\_.EventType == "error"}

**Correct Answer: A**

**Question #34Topic 6**

You have an Azure App Service web app named App1.

You need to collect performance traces for App1.

What should you use?

- A. Azure Application Insights Profiler
- B. the Activity log
- C. the Deployment center

- D. the Diagnose and solve problems settings

**Correct Answer: B**

Question #35 *Topic 6*

You have an Azure subscription that contains the storage accounts shown in the following table.

Name	Kind	Location
storage1	StorageV2	Central US
storage2	BlobStorage	West US
storage3	BlockBlobStorage	West US
storage4	FileStorage	East US

You deploy a web app named App1 to the West US Azure region.

You need to back up App1. The solution must minimize costs.

Which storage account should you use as the target for the backup?

- A. storage1
- B. storage2
- C. storage3
- D. storage4

**Correct Answer B**

Question #36 *Topic 6*

HOTSPOT

You have an Azure subscription that is linked to an Azure AD tenant. The tenant contains two users named User1 and User2.

The subscription contains the resources shown in the following table.

Name	Type	Description
RG1	Resource group	None
VM1	Virtual machine	Created in RG1

The subscription contains the alert rules shown in the following table.

Name	Scope	Condition
Alert1	RG1	All Administrative operations
Alert2	VM1	All Administrative operations

The users perform the following action:

- User1 creates a new virtual disk and attaches the disk to VM1
- User2 creates a new resource tag and assigns the tag to RG1 and VM1

Which alert rules are triggered by each user? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

## Answer Area

User1:

- No alert is triggered  
 Only Alert1 is triggered  
 Only Alert2 is triggered  
 Alert1 and Alert2 are triggered

User2:

- No alert is triggered  
 Only Alert1 is triggered  
 Only Alert2 is triggered  
 Alert1 and Alert2 are triggered

## Answer Area

User1:

No alert is triggered  
Only Alert1 is triggered  
**Only Alert2 is triggered**  
Alert1 and Alert2 are triggered

User2:

No alert is triggered  
Only Alert1 is triggered  
**Only Alert2 is triggered**  
**Alert1 and Alert2 are triggered**

**Correct Answer:**

Question #37 *Topic 6*

You plan to deploy several Azure virtual machines that will run Windows Server 2019 in a virtual machine scale set by using an Azure Resource Manager template.

You need to ensure that NGINX is available on all the virtual machines after they are deployed.

What should you use?

- A. a Desired State Configuration (DSC) extension
- B. the New-AzConfigurationAssignment cmdlet
- C. Azure Application Insights
- D. a Microsoft Endpoint Manager device configuration profile

**Correct Answer: A**

Question #38 *Topic 6*

You have an Azure subscription that contains eight virtual machines and the resources shown in the following table.

Name	Description
storage1	Storage account
storage2	Storage account
KeyVault1	Key vault
VNET1	Virtual network with a single subnet that has five virtual machines connected
VNET2	Virtual network with a single subnet that has three virtual machines connected

You need to configure access for VNET1. The solution must meet the following requirements:

- The virtual machines connected to VNET1 must be able to communicate with the virtual machines connected to VNET2 by using the Microsoft backbone.
- The virtual machines connected to VNET1 must be able to access storage1, storage2, and Azure AD by using the Microsoft backbone.

What is the minimum number of service endpoints you should add to VNET1?

- A. 1
- B. 2
- C. 3
- D. 5

**Correct Answer: B**

#### Question #39 Topic 6

You need to configure an Azure web app named contoso.azurewebsites.net to host www.contoso.com.

What should you do first?

- A. Create A records named www.contoso.com and asuid.contoso.com.
- B. Create a TXT record named asuid that contains the domain verification ID.
- C. Create a CNAME record named asuid that contains the domain verification ID.
- D. Create a TXT record named www.contoso.com that has a value of contoso.azurewebsites.net.

**Correct Answer: B**

You have an Azure subscription that contains 10 network security groups (NSGs), 10 virtual machines, and a Log Analytics workspace named Workspace1. Each NSG is connected to a virtual machine.

You need to configure an Azure Monitor Network Insights alert that will be triggered when suspicious network traffic is detected.

What should you do first?

- A. Deploy Connection Monitor.
- B. Configure data collection endpoints.
- C. Configure a private link.
- D. Configure NSG flow logs.

**Correct Answer:** D

Question #41 *Topic 6*

HOTSPOT

You have an Azure subscription named Sub1 that contains the resources shown in the following table.

Name	Description
RG1	Resource group
Action1	Action group that sends an email message to admin1@contoso.com

Sub1 contains the following alert rule:

- Name: Alert1
- Scope: All resource groups in Sub1 o Include all future resources
- Condition: All administrative operations
- Actions: Action1

Sub1 contains the following alert processing rule:

- Name: Rule1
- Scope: Sub1
- Rule type: Suppress notifications • Apply the rule: On a specific time o Start: August 10, 2022 o End: August 13, 2022

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point.

Statements	Yes	No
If you create a resource group in Sub1 on August 11, 2022, Alert1 is listed in the Azure portal.	<input type="radio"/>	<input type="radio"/>
If you create a resource group in Sub1 on August 12, 2022, an email message is sent to admin1@contoso.com.	<input type="radio"/>	<input type="radio"/>
If you add a tag to RG1 on August 15, 2022, an email message is sent to admin1@contoso.com.	<input type="radio"/>	<input type="radio"/>

**Correct**

**Answer:**

Statements	Yes	No
If you create a resource group in Sub1 on August 11, 2022, Alert1 is listed in the Azure portal.	<input checked="" type="checkbox"/>	<input type="radio"/>
If you create a resource group in Sub1 on August 12, 2022, an email message is sent to admin1@contoso.com.	<input type="radio"/>	<input checked="" type="checkbox"/>
If you add a tag to RG1 on August 15, 2022, an email message is sent to admin1@contoso.com.	<input type="radio"/>	<input checked="" type="checkbox"/>

**Question #42Topic 6**

You have an Azure subscription that contains a storage account named storage1 in the North Europe Azure region.

You need to ensure that when blob data is added to storage1, a secondary copy is created in the East US region. The solution must minimize administrative effort.

What should you configure?

- A. operational backup
- B. object replication
- C. geo-redundant storage (GRS)
- D. a lifecycle management rule

**Correct Answer: B**

**Question #43Topic 6**

You have an Azure subscription that contains two Log Analytics workspaces named Workspace1 and Workspace2 and 100 virtual machines that run Windows Server.

You need to collect performance data and events from the virtual machines. The solution must meet the following requirements:

- Logs must be sent to Workspace1 and Workspace 2.
- All Windows events must be captured.
- All security events must be captured.

What should you install and configure on each virtual machine?

- A. the Azure Monitor agent
- B. the Windows Azure diagnostics extension (WAD)
- C. the Windows VM agent

**Correct Answer: A**

**Question #44Topic 6**

You have an Azure subscription that contains a virtual machine named VM1 and an Azure function named App1.

You need to create an alert rule that will run App1 if VM1 stops.

What should you create for the alert rule?

- A. an application security group
- B. a security group that has dynamic device membership
- C. an action group
- D. an application group

**Correct Answer: C**

**Question #45 Topic 6**

You have an Azure subscription that contains a virtual network named VNet1.

VNet1 uses two ExpressRoute circuits that connect to two separate on-premises datacenters.

You need to create a dashboard to display detailed metrics and a visual representation of the network topology.

What should you use?

- A. Azure Monitor Network Insights
- B. a Data Collection Rule (DCR)
- C. Azure Virtual Network Watcher
- D. Log Analytics

»

**Correct Answer: A**

**Question #46 Topic 6**

You deploy Azure virtual machines to three Azure regions

Each region contains a virtual network. Each virtual network contains multiple subnets peered in a full mesh topology.

Each subnet contains a network security group (NSG) that has defined rules.

A user reports that he cannot use port 33000 to connect from a virtual machine in one region to a virtual machine in another region.

Which two options can you use to diagnose the issue? Each correct answer presents a complete solution.

NOTE: Each correct selection is worth one point.

- A. Azure Virtual Network Manager

- B. IP flow verify
- C. Azure Monitor Network Insights
- D. Connection troubleshoot
- E. elective security rules

**Correct Answer:** BD

### **Topic 7 - Testlet 1**

Question #1 *Topic 7*

#### **Introductory Info** Case study -

This is a case study. Case studies are not timed separately. You can use as much exam time as you would like to complete each case. However, there may be additional case studies and sections on this exam. You must manage your time to ensure that you are able to complete all questions included on this exam in the time provided.

To answer the questions included in a case study, you will need to reference information that is provided in the case study. Case studies might contain exhibits and other resources that provide more information about the scenario that is described in the case study. Each question is independent of the other questions in this case study.

At the end of this case study, a review screen will appear. This screen allows you to review your answers and to make changes before you move to the next section of the exam. After you begin a new section, you cannot return to this section.

To start the case study -

To display the first question in this case study, click the Next button. Use the buttons in the left pane to explore the content of the case study before you answer the questions. Clicking these buttons displays information such as business requirements, existing environment, and problem statements. If the case study has an All Information tab, note that the information displayed is identical to the information displayed on the subsequent tabs. When you are ready to answer a question, click the Question button to return to the question.

Overview -

Contoso, Ltd. is a manufacturing company that has offices worldwide. Contoso works with partner organizations to bring products to market.

Contoso products are manufactured by using blueprint files that the company authors and maintains.

Existing Environment -

Currently, Contoso uses multiple types of servers for business operations, including the following: File servers

Domain controllers

Microsoft SQL Server servers

Your network contains an Active Directory forest named contoso.com. All servers and client computers are joined to Active Directory.

You have a public-facing application named App1. App1 is comprised of the following three tiers: A SQL database

A web front end

A processing middle tier -



Each tier is comprised of five virtual machines. Users access the web front end by using HTTPS only.

Requirements -

Planned Changes -

Contoso plans to implement the following changes to the infrastructure:

Move all the tiers of App1 to Azure.

Move the existing product blueprint files to Azure Blob storage.

Create a hybrid directory to support an upcoming Microsoft 365 migration project.

Technical Requirements -

Contoso must meet the following technical requirements:

Move all the virtual machines for App1 to Azure.

Minimize the number of open ports between the App1 tiers.

Ensure that all the virtual machines for App1 are protected by backups.

Copy the blueprint files to Azure over the Internet.

Ensure that the blueprint files are stored in the archive storage tier.

Ensure that partner access to the blueprint files is secured and temporary.

Prevent user passwords or hashes of passwords from being stored in Azure.

Use unmanaged standard storage for the hard disks of the virtual machines.

Ensure that when users join devices to Azure Active Directory (Azure AD), the users use a mobile phone to verify their identity.

Minimize administrative effort whenever possible.

User Requirements -

Contoso identifies the following requirements for users:

Ensure that only users who are part of a group named Pilot can join devices to Azure AD.

Designate a new user named Admin1 as the service admin for the Azure subscription.

Admin1 must receive email alerts regarding service outages.

Ensure that a new user named User3 can create network objects for the Azure subscription.**QuestionHOTSPOT** -

You need to configure the Device settings to meet the technical requirements and the user requirements.

Which two settings should you modify? To answer, select the appropriate settings in the answer area.

Hot Area:

## Answer Area



Save



Discard



Got feedback?

Users may join devices to Azure AD ⓘ

All

Selected

None

Selected

No member selected

Additional local administrators on Azure AD joined devices ⓘ

Selected

None

Selected

No member selected

Users may register their devices with Azure AD ⓘ

All

None

Require Multi-Factor Auth to join devices ⓘ

Yes

No

Maximum number of devices per user ⓘ

50

Correct

Answer:

## Answer Area



Save



Discard



Got feedback?

Users may join devices to Azure AD ⓘ

All

Selected

None

Selected

No member selected

Additional local administrators on Azure AD joined devices ⓘ

Selected

None

Selected

No member selected

Users may register their devices with Azure AD ⓘ

All

None

Require Multi-Factor Auth to join devices ⓘ

Yes

No

Maximum number of devices per user ⓘ

50

Box 1: Selected -

Only selected users should be able to join devices

Box 2: Yes -

Ensure that when users join devices to Azure Active Directory (Azure AD), the users use a mobile phone to verify their identity.

**Question #2 Topic 7**

**Introductory InfoCase study -**

This is a case study. Case studies are not timed separately. You can use as much exam time as you would like to complete each case. However, there may be additional case studies and sections on this exam. You must manage your time to ensure that you are able to complete all questions included on this exam in the time provided.

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**To start the case study -**

To display the first question in this case study, click the Next button. Use the buttons in the left pane to explore the content of the case study before you answer the questions. Clicking these buttons displays information such as business requirements, existing environment, and problem statements. If the case study has an All Information tab, note that the information displayed is identical to the information displayed on the subsequent tabs. When you are ready to answer a question, click the Question button to return to the question.

**Overview -**

Contoso, Ltd. is a manufacturing company that has offices worldwide. Contoso works with partner organizations to bring products to market.

Contoso products are manufactured by using blueprint files that the company authors and maintains.

**Existing Environment -**

Currently, Contoso uses multiple types of servers for business operations, including the following: File servers

Domain controllers

Microsoft SQL Server servers

Your network contains an Active Directory forest named contoso.com. All servers and client computers are joined to Active Directory.

You have a public-facing application named App1. App1 is comprised of the following three tiers: A SQL database

A web front end

**A processing middle tier -**



Each tier is comprised of five virtual machines. Users access the web front end by using HTTPS only.

**Requirements -**

**Planned Changes -**

Contoso plans to implement the following changes to the infrastructure:

Move all the tiers of App1 to Azure.

Move the existing product blueprint files to Azure Blob storage.

Create a hybrid directory to support an upcoming Microsoft 365 migration project.

**Technical Requirements -**

Contoso must meet the following technical requirements:

Move all the virtual machines for App1 to Azure.

Minimize the number of open ports between the App1 tiers.

Ensure that all the virtual machines for App1 are protected by backups.

Copy the blueprint files to Azure over the Internet.

Ensure that the blueprint files are stored in the archive storage tier.

Ensure that partner access to the blueprint files is secured and temporary.

Prevent user passwords or hashes of passwords from being stored in Azure.

Use unmanaged standard storage for the hard disks of the virtual machines.

Ensure that when users join devices to Azure Active Directory (Azure AD), the users use a mobile phone to verify their identity.

Minimize administrative effort whenever possible.

#### User Requirements -

Contoso identifies the following requirements for users:

Ensure that only users who are part of a group named Pilot can join devices to Azure AD.

Designate a new user named Admin1 as the service admin for the Azure subscription.

Admin1 must receive email alerts regarding service outages.

Ensure that a new user named User3 can create network objects for the Azure subscription. **Question** You need to meet the user requirement for Admin1. What should you do?

- A. From the Azure Active Directory blade, modify the Groups
- B. From the Azure Active Directory blade, modify the Properties
- C. From the Subscriptions blade, select the subscription, and then modify the Access control (IAM) settings
- D. From the Subscriptions blade, select the subscription, and then modify the Properties

#### **Correct Answer: D Scenario:**

⇒ Designate a new user named Admin1 as the service admin for the Azure subscription.

⇒ Admin1 must receive email alerts regarding service outages.

Follow these steps to change the Service Administrator in the Azure portal.

1. Make sure your scenario is supported by checking the limitations for changing the Service Administrator.
2. Sign in to the Azure portal as the Account Administrator.
3. Open Cost Management + Billing and select a subscription.
4. In the left navigation, click Properties.
5. Click Service Admin.

#### Reference:

<https://docs.microsoft.com/en-us/azure/role-based-access-control/classic-administrators>

### **Topic 8 - Testlet 10**

#### **Question #1 Topic 8**

#### **Introductory Info Case study -**

This is a case study. Case studies are not timed separately. You can use as much exam time as you would like to complete each case. However, there may be additional case studies and sections on this exam. You must manage your time to ensure that you are able to complete all questions included on this exam in the time provided.

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To display the first question in this case study, click the Next button. Use the buttons in the left pane to explore the content of the case study before you answer the questions. Clicking these buttons displays information such as business requirements, existing environment, and problem statements. If the case study has an All Information tab, note that the information displayed is identical to the information displayed on the subsequent tabs. When you are ready to answer a question, click the Question button to return to the question.

Overview -

General Overview -

Contoso, Ltd. is a consulting company that has a main office in Montreal and branch offices in Seattle and New York.

Environment -

Existing Environment -

Contoso has an Azure subscription named Sub1 that is linked to an Azure Active Directory (Azure AD) tenant. The network contains an on-premises Active Directory domain that syncs to the Azure AD tenant.

The Azure AD tenant contains the users shown in the following table.

Name	Type	Role
User1	Member	<b>None</b>
User2	Guest	<b>None</b>
User3	Member	<b>None</b>
User4	Member	<b>None</b>

Sub1 contains two resource groups named RG1 and RG2 and the virtual networks shown in the following table.

Name	Subnet	Peered with
VNET1	Subnet1, Subnet2	VNET2
VNET2	Subnet1	VNET1, VNET3
VNET3	Subnet1	VNET2
VNET4	Subnet1	<b>None</b>

User1 manages the resources in RG1. User4 manages the resources in RG2.

Sub1 contains virtual machines that run Windows Server 2019 as shown in the following table

Name	IP address	Location	Connected to
VM1	10.0.1.4	West US	VNET1/Subnet1
VM2	10.0.2.4	West US	VNET1/Subnet2
VM3	172.16.1.4	Central US	VNET2/Subnet1
VM4	192.168.1.4	West US	VNET3/Subnet1
VM5	10.0.22.4	East US	VNET4/Subnet1

No network security groups (NSGs) are associated to the network interfaces or the subnets. Sub1 contains the storage accounts shown in the following table.

Name	Kind	Location	File share	Identity-based access for file share
storage1	Storage (general purpose v1)	West US	sharea	Azure Active Directory Domain Services (Azure AD DS)
storage2	StorageV2 (general purpose v2)	East US	shareb, sharec	Disabled
storage3	BlobStorage	East US 2	Not applicable	Not applicable
storage4	FileStorage	Central US	shared	Azure Active Directory Domain Services (Azure AD DS)

Requirements -

Planned Changes -

Contoso plans to implement the following changes:

Create a blob container named container1 and a file share named share1 that will use the Cool storage tier.

Create a storage account named storage5 and configure storage replication for the Blob service. Create an NSG named NSG1 that will have the custom inbound security rules shown in the following table.

Priority	Port	Protocol	Source	Destination	Action
500	3389	TCP	10.0.2.0/24	Any	Deny
1000	Any	ICMP	Any	VirtualNetwork	Allow

Associate NSG1 to the network interface of VM1.

Create an NSG named NSG2 that will have the custom outbound security rules shown in the following table.

Priority	Port	Protocol	Source	Destination	Action
200	3389	TCP	10.0.0.0/16	VirtualNetwork	Deny
400	Any	ICMP	10.0.2.0/24	10.0.1.0/24	Allow

Associate NSG2 to VNET1/Subnet2.

Technical Requirements -

Contoso must meet the following technical requirements:

Create container1 and share1.

Use the principle of least privilege.

Create an Azure AD security group named Group4.

Back up the Azure file shares and virtual machines by using Azure Backup.

Trigger an alert if VM1 or VM2 has less than 20 GB of free space on volume C.

Enable User1 to create Azure policy definitions and User2 to assign Azure policies to RG1.

Create an internal Basic Azure Load Balancer named LB1 and connect the load balancer to VNET1/Subnet1

Enable flow logging for IP traffic from VM5 and retain the flow logs for a period of eight months.

Whenever possible, grant Group4 Azure role-based access control (Azure RBAC) read-only permissions to the Azure file shares.

### **Question**

HOTSPOT -

You need to configure Azure Backup to back up the file shares and virtual machines.

What is the minimum number of Recovery Services vaults and backup policies you should create? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

## Answer Area

Recovery Services vaults

	▼
1	
2	
3	
4	
7	

Backup policies

	▼
1	
2	
3	
4	
5	
6	

# Answer Area

Recovery Services vaults

	▼
1	
2	
3	
4	
7	

Backup policies

	▼
1	
2	
3	
4	
5	
6	

**Correct Answer:**

Box 1: 3 -

If you have data sources in multiple regions, create a Recovery Services vault for each region. The File Shares and VMs are located in three Regions: West US, East US, Central US.

Box 2: 6 -

A backup policy is scoped to a vault. For each vault we need one backup policy for File Shares and one backup policy for VM.

Note:

Back up the Azure file shares and virtual machines by using Azure Backup

Name	Kind	Location	File share	Identity-based access for file share
storage1	Storage (general purpose v1)	West US	sharea	Azure Active Directory Domain Services (Azure AD DS)
storage2	StorageV2 (general purpose v2)	East US	shareb, sharec	Disabled
storage3	BlobStorage	East US 2	Not applicable	Not applicable
storage4	FileStorage	Central US	shared	Azure Active Directory Domain Services (Azure AD DS)

Name	IP address	Location	Connected to
VM1	10.0.1.4	West US	VNET1/Subnet1
VM2	10.0.2.4	West US	VNET1/Subnet2
VM3	172.16.1.4	Central US	VNET2/Subnet1
VM4	192.168.1.4	West US	VNET3/Subnet1
VM5	10.0.22.4	East US	VNET4/Subnet1

Reference: <https://docs.microsoft.com/en-us/azure/backup/backup-create-rs-vault>

<https://docs.microsoft.com/enus/azure/backup/guidance-best-practices>

Question #2 Topic 8

**Introductory Info** Case study -

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Overview -

General Overview -

Contoso, Ltd. is a consulting company that has a main office in Montreal and branch offices in Seattle and New York.

Environment -

Existing Environment -

Contoso has an Azure subscription named Sub1 that is linked to an Azure Active Directory (Azure AD) tenant. The network contains an on-premises Active Directory domain that syncs to the Azure AD tenant.

The Azure AD tenant contains the users shown in the following table.

Name	Type	Role
User1	Member	<b>None</b>
User2	Guest	<b>None</b>
User3	Member	<b>None</b>
User4	Member	<b>None</b>

Sub1 contains two resource groups named RG1 and RG2 and the virtual networks shown in the following table.

Name	Subnet	Peered with
VNET1	Subnet1, Subnet2	VNET2
VNET2	Subnet1	VNET1, VNET3
VNET3	Subnet1	VNET2
VNET4	Subnet1	<b>None</b>

User1 manages the resources in RG1. User4 manages the resources in RG2.

Sub1 contains virtual machines that run Windows Server 2019 as shown in the following table

Name	IP address	Location	Connected to
VM1	10.0.1.4	West US	VNET1/Subnet1
VM2	10.0.2.4	West US	VNET1/Subnet2
VM3	172.16.1.4	Central US	VNET2/Subnet1
VM4	192.168.1.4	West US	VNET3/Subnet1
VM5	10.0.22.4	East US	VNET4/Subnet1

No network security groups (NSGs) are associated to the network interfaces or the subnets.

Sub1 contains the storage accounts shown in the following table.

Name	Kind	Location	File share	Identity-based access for file share
storage1	Storage (general purpose v1)	West US	sharea	Azure Active Directory Domain Services (Azure AD DS)
storage2	StorageV2 (general purpose v2)	East US	shareb, sharec	Disabled
storage3	BlobStorage	East US 2	Not applicable	Not applicable
storage4	FileStorage	Central US	shared	Azure Active Directory Domain Services (Azure AD DS)

Requirements -

#### Planned Changes -

Contoso plans to implement the following changes:

Create a blob container named container1 and a file share named share1 that will use the Cool storage tier.

Create a storage account named storage5 and configure storage replication for the Blob service. Create an NSG named NSG1 that will have the custom inbound security rules shown in the following table.

Priority	Port	Protocol	Source	Destination	Action
500	3389	TCP	10.0.2.0/24	Any	Deny
1000	Any	ICMP	Any	VirtualNetwork	Allow

Associate NSG1 to the network interface of VM1.

Create an NSG named NSG2 that will have the custom outbound security rules shown in the following table.

Priority	Port	Protocol	Source	Destination	Action
200	3389	TCP	10.0.0.0/16	VirtualNetwork	Deny
400	Any	ICMP	10.0.2.0/24	10.0.1.0/24	Allow

Associate NSG2 to VNET1/Subnet2.

#### Technical Requirements -

Contoso must meet the following technical requirements:

Create container1 and share1.

Use the principle of least privilege.

Create an Azure AD security group named Group4.

Back up the Azure file shares and virtual machines by using Azure Backup.

Trigger an alert if VM1 or VM2 has less than 20 GB of free space on volume C.

Enable User1 to create Azure policy definitions and User2 to assign Azure policies to RG1.

Create an internal Basic Azure Load Balancer named LB1 and connect the load balancer to VNET1/Subnet1

Enable flow logging for IP traffic from VM5 and retain the flow logs for a period of eight months.

Whenever possible, grant Group4 Azure role-based access control (Azure RBAC) read-only permissions to the Azure file shares. **Question DRAG DROP -**

You need to configure the alerts for VM1 and VM2 to meet the technical requirements.

Which three actions should you perform in sequence? To answer, move all actions from the list of actions to the answer area and arrange them in the correct order. Select and Place:

Actions	Answer Area
Create a Log Analytics workspace.	
Configure the Diagnostic settings.	
Create an alert rule.	
Collect Windows performance counters from the Log Analytics agents.	
Create an Azure SQL database.	

Move items between panes using the arrows:

- Up arrow (top right): Moves selected item to the top of the target pane.
- Down arrow (bottom right): Moves selected item to the bottom of the target pane.
- Left arrow (right of source pane): Moves selected item from the source pane to the target pane.
- Right arrow (left of target pane): Moves selected item from the source pane to the target pane.

### Correct

#### Answer:

Actions	Answer Area
	Create an alert rule.
Configure the Diagnostic settings.	
	Create an Azure SQL database.
Collect Windows performance counters from the Log Analytics agents.	
	Create a Log Analytics workspace.

Move items between panes using the arrows:

- Up arrow (top right): Moves selected item to the top of the target pane.
- Down arrow (bottom right): Moves selected item to the bottom of the target pane.
- Left arrow (right of source pane): Moves selected item from the source pane to the target pane.
- Right arrow (left of target pane): Moves selected item from the source pane to the target pane.

## Topic 9 - Testlet 2

### Question #1 Topic 9

#### Introductory Info Case study -

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#### Overview -

#### General Overview -

Contoso, Ltd. is a consulting company that has a main office in Montreal and branch offices in Seattle and New York.

#### Environment -

#### Existing Environment -

Contoso has an Azure subscription named Sub1 that is linked to an Azure Active Directory (Azure AD) tenant. The network contains an on-premises Active Directory domain that syncs to the Azure AD tenant.

The Azure AD tenant contains the users shown in the following table.

Name	Type	Role
User1	Member	<b>None</b>
User2	Guest	<b>None</b>
User3	Member	<b>None</b>
User4	Member	<b>None</b>

Sub1 contains two resource groups named RG1 and RG2 and the virtual networks shown in the following table.

Name	Subnet	Peered with
VNET1	Subnet1, Subnet2	VNET2
VNET2	Subnet1	VNET1, VNET3
VNET3	Subnet1	VNET2
VNET4	Subnet1	<b>None</b>

User1 manages the resources in RG1. User4 manages the resources in RG2.

Sub1 contains virtual machines that run Windows Server 2019 as shown in the following table

Name	IP address	Location	Connected to
VM1	10.0.1.4	West US	VNET1/Subnet1
VM2	10.0.2.4	West US	VNET1/Subnet2
VM3	172.16.1.4	Central US	VNET2/Subnet1
VM4	192.168.1.4	West US	VNET3/Subnet1
VM5	10.0.22.4	East US	VNET4/Subnet1

No network security groups (NSGs) are associated to the network interfaces or the subnets. Sub1 contains the storage accounts shown in the following table.

Name	Kind	Location	File share	Identity-based access for file share
storage1	Storage (general purpose v1)	West US	sharea	Azure Active Directory Domain Services (Azure AD DS)
storage2	StorageV2 (general purpose v2)	East US	shareb, sharec	Disabled
storage3	BlobStorage	East US 2	<b>Not applicable</b>	<b>Not applicable</b>
storage4	FileStorage	Central US	shared	Azure Active Directory Domain Services (Azure AD DS)

Requirements -

**Planned Changes -**

Contoso plans to implement the following changes:

Create a blob container named container1 and a file share named share1 that will use the Cool storage tier.

Create a storage account named storage5 and configure storage replication for the Blob service. Create an NSG named NSG1 that will have the custom inbound security rules shown in the following table.

Priority	Port	Protocol	Source	Destination	Action
500	3389	TCP	10.0.2.0/24	Any	Deny
1000	Any	ICMP	Any	VirtualNetwork	Allow

Associate NSG1 to the network interface of VM1.

Create an NSG named NSG2 that will have the custom outbound security rules shown in the following table.

Priority	Port	Protocol	Source	Destination	Action
200	3389	TCP	10.0.0.0/16	VirtualNetwork	Deny
400	Any	ICMP	10.0.2.0/24	10.0.1.0/24	Allow

Associate NSG2 to VNET1/Subnet2.

**Technical Requirements -**

Contoso must meet the following technical requirements:

Create container1 and share1.

Use the principle of least privilege.

Create an Azure AD security group named Group4.

Back up the Azure file shares and virtual machines by using Azure Backup.

Trigger an alert if VM1 or VM2 has less than 20 GB of free space on volume C.

Enable User1 to create Azure policy definitions and User2 to assign Azure policies to RG1.

Create an internal Basic Azure Load Balancer named LB1 and connect the load balancer to VNET1/Subnet1

Enable flow logging for IP traffic from VM5 and retain the flow logs for a period of eight months.

Whenever possible, grant Group4 Azure role-based access control (Azure RBAC) read-only permissions to the Azure file shares. **QuestionHOTSPOT** -

You need to ensure that User1 can create initiative definitions, and User4 can assign initiatives to RG2.

The solution must meet the technical requirements.

Which role should you assign to each user? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

## Answer Area

User1:

Contributor for RG1
Contributor for Sub1
Security Admin for RG1
Resource Policy Contributor for Sub1

User4:

Contributor for RG2
Contributor for Sub1
Security Admin for Sub1
Resource Policy Contributor for RG2

Correct

Answer:

## Answer Area

User1:

Contributor for RG1
Contributor for Sub1
Security Admin for RG1
Resource Policy Contributor for Sub1

User4:

Contributor for RG2
Contributor for Sub1
Security Admin for Sub1
Resource Policy Contributor for RG2

Reference: <https://docs.microsoft.com/en-us/azure/governance/policy/overview>

Question #2 *Topic 9*

**Introductory Info**Case study -

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Overview -

General Overview -

Contoso, Ltd. is a consulting company that has a main office in Montreal and branch offices in Seattle and New York.

Environment -

Existing Environment -

Contoso has an Azure subscription named Sub1 that is linked to an Azure Active Directory (Azure AD) tenant. The network contains an on-premises Active Directory domain that syncs to the Azure AD tenant.

The Azure AD tenant contains the users shown in the following table.

Name	Type	Role
User1	Member	<b>None</b>
User2	Guest	<b>None</b>
User3	Member	<b>None</b>
User4	Member	<b>None</b>

Sub1 contains two resource groups named RG1 and RG2 and the virtual networks shown in the following table.

Name	Subnet	Peered with
VNET1	Subnet1, Subnet2	VNET2
VNET2	Subnet1	VNET1, VNET3
VNET3	Subnet1	VNET2
VNET4	Subnet1	<b>None</b>

User1 manages the resources in RG1. User4 manages the resources in RG2.

Sub1 contains virtual machines that run Windows Server 2019 as shown in the following table

Name	IP address	Location	Connected to
VM1	10.0.1.4	West US	VNET1/Subnet1
VM2	10.0.2.4	West US	VNET1/Subnet2
VM3	172.16.1.4	Central US	VNET2/Subnet1
VM4	192.168.1.4	West US	VNET3/Subnet1
VM5	10.0.22.4	East US	VNET4/Subnet1

No network security groups (NSGs) are associated to the network interfaces or the subnets.

Sub1 contains the storage accounts shown in the following table.

Name	Kind	Location	File share	Identity-based access for file share
storage1	Storage (general purpose v1)	West US	sharea	Azure Active Directory Domain Services (Azure AD DS)
storage2	StorageV2 (general purpose v2)	East US	shareb, sharec	Disabled
storage3	BlobStorage	East US 2	Not applicable	Not applicable
storage4	FileStorage	Central US	shared	Azure Active Directory Domain Services (Azure AD DS)

Requirements -

#### Planned Changes -

Contoso plans to implement the following changes:

Create a blob container named container1 and a file share named share1 that will use the Cool storage tier.

Create a storage account named storage5 and configure storage replication for the Blob service. Create an NSG named NSG1 that will have the custom inbound security rules shown in the following table.

Priority	Port	Protocol	Source	Destination	Action
500	3389	TCP	10.0.2.0/24	Any	Deny
1000	Any	ICMP	Any	VirtualNetwork	Allow

Associate NSG1 to the network interface of VM1.

Create an NSG named NSG2 that will have the custom outbound security rules shown in the following table.

Priority	Port	Protocol	Source	Destination	Action
200	3389	TCP	10.0.0.0/16	VirtualNetwork	Deny
400	Any	ICMP	10.0.2.0/24	10.0.1.0/24	Allow

Associate NSG2 to VNET1/Subnet2.

#### Technical Requirements -

Contoso must meet the following technical requirements:

Create container1 and share1.

Use the principle of least privilege.

Create an Azure AD security group named Group4.

Back up the Azure file shares and virtual machines by using Azure Backup.

Trigger an alert if VM1 or VM2 has less than 20 GB of free space on volume C.

Enable User1 to create Azure policy definitions and User2 to assign Azure policies to RG1.

Create an internal Basic Azure Load Balancer named LB1 and connect the load balancer to VNET1/Subnet1

Enable flow logging for IP traffic from VM5 and retain the flow logs for a period of eight months.

Whenever possible, grant Group4 Azure role-based access control (Azure RBAC) read-only permissions to the Azure file shares. **Question** You need to ensure that you can grant Group4 Azure RBAC read only permissions to all the Azure file shares. What should you do?

- A. On storage2, enable identity-based access for the file shares.
- B. Recreate storage2 and set Hierarchical namespace to Enabled.
- C. On storage1 and storage4, change the Account kind type to StorageV2 (general purpose v2).
- D. Create a shared access signature (SAS) for storage1, storage2, and storage4.

**Correct Answer:** A

Azure Files supports identity-based authentication over Server Message Block (SMB) through on-premises Active Directory Domain Services (AD DS) and Azure Active Directory Domain Services (Azure AD DS).

Reference:

<https://docs.microsoft.com/en-us/azure/storage/files/storage-files-active-directory-overview>

**Topic 10 - Testlet 3**

**Question #1** *Topic 10*

**Introductory Info** Case study -

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Overview -

Contoso, Ltd. is a manufacturing company that has offices worldwide. Contoso works with partner organizations to bring products to market.

Contoso products are manufactured by using blueprint files that the company authors and maintains.

Existing Environment -

Currently, Contoso uses multiple types of servers for business operations, including the following: File servers

Domain controllers

Microsoft SQL Server servers

Your network contains an Active Directory forest named contoso.com. All servers and client computers are joined to Active Directory.

You have a public-facing application named App1. App1 is comprised of the following three tiers: A SQL database

A web front end

A processing middle tier -

- Each tier is comprised of five virtual machines. Users access the web front end by using HTTPS only.

Requirements -

Planned Changes -

Contoso plans to implement the following changes to the infrastructure:

Move all the tiers of App1 to Azure.

Move the existing product blueprint files to Azure Blob storage.

Create a hybrid directory to support an upcoming Microsoft 365 migration project.

Technical Requirements -

Contoso must meet the following technical requirements:

Move all the virtual machines for App1 to Azure.

Minimize the number of open ports between the App1 tiers.

Ensure that all the virtual machines for App1 are protected by backups.

Copy the blueprint files to Azure over the Internet.

Ensure that the blueprint files are stored in the archive storage tier.

Ensure that partner access to the blueprint files is secured and temporary.

Prevent user passwords or hashes of passwords from being stored in Azure.

Use unmanaged standard storage for the hard disks of the virtual machines.

Ensure that when users join devices to Azure Active Directory (Azure AD), the users use a mobile phone to verify their identity.

Minimize administrative effort whenever possible.

User Requirements -

Contoso identifies the following requirements for users:

Ensure that only users who are part of a group named Pilot can join devices to Azure AD.

Designate a new user named Admin1 as the service admin for the Azure subscription.

Admin1 must receive email alerts regarding service outages.

Ensure that a new user named User3 can create network objects for the Azure subscription. **Question** You need to implement a backup solution for App1 after the application is moved. What should you create first?

- A. a recovery plan
- B. an Azure Backup Server
- C. a backup policy
- D. a Recovery Services vault

**Correct Answer: D**

A Recovery Services vault is a logical container that stores the backup data for each protected resource, such as Azure VMs. When the backup job for a protected resource runs, it creates a recovery point inside the Recovery Services vault.

Scenario:

There are three application tiers, each with five virtual machines.

Move all the virtual machines for App1 to Azure.

Ensure that all the virtual machines for App1 are protected by backups.

Reference:

<https://docs.microsoft.com/en-us/azure/backup/quick-backup-vm-portal>

Question #2 *Topic 10*

**Introductory Info** Case study -

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Your network contains an Active Directory forest named contoso.com. All servers and client computers are joined to Active Directory.

You have a public-facing application named App1. App1 is comprised of the following three tiers: A

SQL database

A web front end

A processing middle tier -



Each tier is comprised of five virtual machines. Users access the web front end by using HTTPS only.

Requirements -

Planned Changes -

Contoso plans to implement the following changes to the infrastructure:

Move all the tiers of App1 to Azure.

Move the existing product blueprint files to Azure Blob storage.

Create a hybrid directory to support an upcoming Microsoft 365 migration project.

**Technical Requirements -**

Contoso must meet the following technical requirements:

Move all the virtual machines for App1 to Azure.

Minimize the number of open ports between the App1 tiers.

Ensure that all the virtual machines for App1 are protected by backups.

Copy the blueprint files to Azure over the Internet.

Ensure that the blueprint files are stored in the archive storage tier.

Ensure that partner access to the blueprint files is secured and temporary.

Prevent user passwords or hashes of passwords from being stored in Azure.

Use unmanaged standard storage for the hard disks of the virtual machines.

Ensure that when users join devices to Azure Active Directory (Azure AD), the users use a mobile phone to verify their identity.

Minimize administrative effort whenever possible.

**User Requirements -**

Contoso identifies the following requirements for users:

Ensure that only users who are part of a group named Pilot can join devices to Azure AD.

Designate a new user named Admin1 as the service admin for the Azure subscription.

Admin1 must receive email alerts regarding service outages.

Ensure that a new user named User3 can create network objects for the Azure subscription. **Question** You need to move the blueprint files to Azure. What should you do?

- A. Generate an access key. Map a drive, and then copy the files by using File Explorer.
- B. Use Azure Storage Explorer to copy the files.
- C. Use the Azure Import/Export service.
- D. Generate a shared access signature (SAS). Map a drive, and then copy the files by using File Explorer.

**Correct Answer: B**

Azure Storage Explorer is a free tool from Microsoft that allows you to work with Azure Storage data on Windows, macOS, and Linux. You can use it to upload and download data from Azure blob storage.

**Scenario:**

Planned Changes include: move the existing product blueprint files to Azure Blob storage. Technical Requirements include: Copy the blueprint files to Azure over the Internet.

Reference: <https://docs.microsoft.com/en-us/azure/machine-learning/team-data-science-process/move-data-toazure-blob-using-azure-storage-explorer>

**Question #3 Topic 10**

**Introductory Info Case study -**

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To start the case study -

To display the first question in this case study, click the Next button. Use the buttons in the left pane to explore the content of the case study before you answer the questions. Clicking these buttons displays information such as business requirements, existing environment, and problem statements. If the case study has an All Information tab, note that the information displayed is identical to the information displayed on the subsequent tabs. When you are ready to answer a question, click the Question button to return to the question.

Overview -

Contoso, Ltd. is a manufacturing company that has offices worldwide. Contoso works with partner organizations to bring products to market.

Contoso products are manufactured by using blueprint files that the company authors and maintains.

Existing Environment -

Currently, Contoso uses multiple types of servers for business operations, including the following: File servers

Domain controllers

Microsoft SQL Server servers

Your network contains an Active Directory forest named contoso.com. All servers and client computers are joined to Active Directory.

You have a public-facing application named App1. App1 is comprised of the following three tiers: A SQL database

A web front end

A processing middle tier -



Each tier is comprised of five virtual machines. Users access the web front end by using HTTPS only.

Requirements -

Planned Changes -

Contoso plans to implement the following changes to the infrastructure:

Move all the tiers of App1 to Azure.

Move the existing product blueprint files to Azure Blob storage.

Create a hybrid directory to support an upcoming Microsoft 365 migration project.

Technical Requirements -

Contoso must meet the following technical requirements:

Move all the virtual machines for App1 to Azure.

Minimize the number of open ports between the App1 tiers.

Ensure that all the virtual machines for App1 are protected by backups.

Copy the blueprint files to Azure over the Internet.

Ensure that the blueprint files are stored in the archive storage tier.

Ensure that partner access to the blueprint files is secured and temporary.

Prevent user passwords or hashes of passwords from being stored in Azure.

Use unmanaged standard storage for the hard disks of the virtual machines.

Ensure that when users join devices to Azure Active Directory (Azure AD), the users use a mobile phone to verify their identity.

Minimize administrative effort whenever possible.

#### User Requirements -

Contoso identifies the following requirements for users:

Ensure that only users who are part of a group named Pilot can join devices to Azure AD.

Designate a new user named Admin1 as the service admin for the Azure subscription.

Admin1 must receive email alerts regarding service outages.

Ensure that a new user named User3 can create network objects for the Azure subscription.**QuestionHOTSPOT** -

You need to identify the storage requirements for Contoso.

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point. Hot Area:

### Answer Area

Statements	Yes	No
Contoso requires a storage account that supports Blob storage.	<input type="radio"/>	<input type="radio"/>
Contoso requires a storage account that supports Azure Table storage.	<input type="radio"/>	<input type="radio"/>
Contoso requires a storage account that supports Azure File Storage.	<input type="radio"/>	<input type="radio"/>

**Correct**

**Answer:**

### Answer Area

Statements	Yes	No
Contoso requires a storage account that supports Blob storage.	<input checked="" type="radio"/>	<input type="radio"/>
Contoso requires a storage account that supports Azure Table storage.	<input type="radio"/>	<input checked="" type="radio"/>
Contoso requires a storage account that supports Azure File Storage.	<input type="radio"/>	<input checked="" type="radio"/>

Box 1: Yes -

Contoso is moving the existing product blueprint files to Azure Blob storage.

Use unmanaged standard storage for the hard disks of the virtual machines. We use Page Blobs for these.

Box 2: No - Box

3: No

#### Topic 11 - Testlet 4

Question #1**Topic 11**

**Introductory Info**Case study -

This is a case study. Case studies are not timed separately. You can use as much exam time as you would like to complete each case. However, there may be additional case studies and sections on this exam. You must manage your time to ensure that you are able to complete all questions included on this exam in the time provided.

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At the end of this case study, a review screen will appear. This screen allows you to review your answers and to make changes before you move to the next section of the exam. After you begin a new section, you cannot return to this section.

**To start the case study -**

To display the first question in this case study, click the Next button. Use the buttons in the left pane to explore the content of the case study before you answer the questions. Clicking these buttons displays information such as business requirements, existing environment, and problem statements. If the case study has an All Information tab, note that the information displayed is identical to the information displayed on the subsequent tabs. When you are ready to answer a question, click the Question button to return to the question.

**Overview -**

**General Overview -**

Contoso, Ltd. is a consulting company that has a main office in Montreal and branch offices in Seattle and New York.

**Environment -**

**Existing Environment -**

Contoso has an Azure subscription named Sub1 that is linked to an Azure Active Directory (Azure AD) tenant. The network contains an on-premises Active Directory domain that syncs to the Azure AD tenant.

The Azure AD tenant contains the users shown in the following table.

Name	Type	Role
User1	Member	<b>None</b>
User2	Guest	<b>None</b>
User3	Member	<b>None</b>
User4	Member	<b>None</b>

Sub1 contains two resource groups named RG1 and RG2 and the virtual networks shown in the following table.

Name	Subnet	Peered with
VNET1	Subnet1, Subnet2	VNET2
VNET2	Subnet1	VNET1, VNET3
VNET3	Subnet1	VNET2
VNET4	Subnet1	<b>None</b>

User1 manages the resources in RG1. User4 manages the resources in RG2.

Sub1 contains virtual machines that run Windows Server 2019 as shown in the following table

Name	IP address	Location	Connected to
VM1	10.0.1.4	West US	VNET1/Subnet1
VM2	10.0.2.4	West US	VNET1/Subnet2
VM3	172.16.1.4	Central US	VNET2/Subnet1
VM4	192.168.1.4	West US	VNET3/Subnet1
VM5	10.0.22.4	East US	VNET4/Subnet1

No network security groups (NSGs) are associated to the network interfaces or the subnets.

Sub1 contains the storage accounts shown in the following table.

Name	Kind	Location	File share	Identity-based access for file share
storage1	Storage (general purpose v1)	West US	sharea	Azure Active Directory Domain Services (Azure AD DS)
storage2	StorageV2 (general purpose v2)	East US	shareb, sharec	Disabled
storage3	BlobStorage	East US 2	<b>Not applicable</b>	<b>Not applicable</b>
storage4	FileStorage	Central US	shared	Azure Active Directory Domain Services (Azure AD DS)

Requirements -

Planned Changes -

Contoso plans to implement the following changes:

Create a blob container named container1 and a file share named share1 that will use the Cool storage tier.

Create a storage account named storage5 and configure storage replication for the Blob service. Create an NSG named NSG1 that will have the custom inbound security rules shown in the following table.

Priority	Port	Protocol	Source	Destination	Action
500	3389	TCP	10.0.2.0/24	Any	Deny
1000	Any	ICMP	Any	VirtualNetwork	Allow

Associate NSG1 to the network interface of VM1.

Create an NSG named NSG2 that will have the custom outbound security rules shown in the following table.

Priority	Port	Protocol	Source	Destination	Action
200	3389	TCP	10.0.0.0/16	VirtualNetwork	Deny
400	Any	ICMP	10.0.2.0/24	10.0.1.0/24	Allow

Associate NSG2 to VNET1/Subnet2.

Technical Requirements -

Contoso must meet the following technical requirements:

Create container1 and share1.

Use the principle of least privilege.

Create an Azure AD security group named Group4.

Back up the Azure file shares and virtual machines by using Azure Backup.

Trigger an alert if VM1 or VM2 has less than 20 GB of free space on volume C.

Enable User1 to create Azure policy definitions and User2 to assign Azure policies to RG1.

Create an internal Basic Azure Load Balancer named LB1 and connect the load balancer to VNET1/Subnet1

Enable flow logging for IP traffic from VM5 and retain the flow logs for a period of eight months.

Whenever possible, grant Group4 Azure role-based access control (Azure RBAC) read-only permissions to the Azure file shares. **QuestionHOTSPOT** - You need to create container1 and share1.

Which storage accounts should you use for each resource? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

## Answer Area

container1:

- storage2 only
- storage2 and storage3 only
- storage1, storage2, and storage3 only
- storage2, storage3, and storage4 only
- storage1, storage2, storage3, and storage4

share1:

- storage2 only
- storage4 only
- storage2 and storage4 only
- storage1, storage2, and storage4 only
- storage1, storage2, storage3, and storage4

Correct

Answer:

## Answer Area

container1:

- storage2 only
- storage2 and storage3 only
- storage1, storage2, and storage3 only
- storage2, storage3, and storage4 only
- storage1, storage2, storage3, and storage4

share1:

- storage2 only
- storage4 only
- storage2 and storage4 only
- storage1, storage2, and storage4 only
- storage1, storage2, storage3, and storage4

Reference: <https://docs.microsoft.com/en-us/azure/storage/blobs/storage-blob-storage-tiers>

<https://docs.microsoft.com/en-us/azure/storage/common/storage-account-overview>

Question #2 Topic 11

**Introductory Info** Case study -

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To start the case study -

To display the first question in this case study, click the Next button. Use the buttons in the left pane to explore the content of the case study before you answer the questions. Clicking these buttons displays information such as business requirements, existing environment, and problem statements. If the case study has an All Information tab, note that the information displayed is identical to the information displayed on the subsequent tabs. When you are ready to answer a question, click the Question button to return to the question.

Overview -

General Overview -

Contoso, Ltd. is a consulting company that has a main office in Montreal and branch offices in Seattle and New York.

Environment -

Existing Environment -

Contoso has an Azure subscription named Sub1 that is linked to an Azure Active Directory (Azure AD) tenant. The network contains an on-premises Active Directory domain that syncs to the Azure AD tenant.

The Azure AD tenant contains the users shown in the following table.

Name	Type	Role
User1	Member	<b>None</b>
User2	Guest	<b>None</b>
User3	Member	<b>None</b>
User4	Member	<b>None</b>

Sub1 contains two resource groups named RG1 and RG2 and the virtual networks shown in the following table.

Name	Subnet	Peered with
VNET1	Subnet1, Subnet2	VNET2
VNET2	Subnet1	VNET1, VNET3
VNET3	Subnet1	VNET2
VNET4	Subnet1	<b>None</b>

User1 manages the resources in RG1. User4 manages the resources in RG2.

Sub1 contains virtual machines that run Windows Server 2019 as shown in the following table

Name	IP address	Location	Connected to
VM1	10.0.1.4	West US	VNET1/Subnet1
VM2	10.0.2.4	West US	VNET1/Subnet2
VM3	172.16.1.4	Central US	VNET2/Subnet1
VM4	192.168.1.4	West US	VNET3/Subnet1
VM5	10.0.22.4	East US	VNET4/Subnet1

No network security groups (NSGs) are associated to the network interfaces or the subnets.

Sub1 contains the storage accounts shown in the following table.

Name	Kind	Location	File share	Identity-based access for file share
storage1	Storage (general purpose v1)	West US	sharea	Azure Active Directory Domain Services (Azure AD DS)
storage2	StorageV2 (general purpose v2)	East US	shareb, sharec	Disabled
storage3	BlobStorage	East US 2	Not applicable	Not applicable
storage4	FileStorage	Central US	shared	Azure Active Directory Domain Services (Azure AD DS)

Requirements -

#### Planned Changes -

Contoso plans to implement the following changes:

Create a blob container named container1 and a file share named share1 that will use the Cool storage tier.

Create a storage account named storage5 and configure storage replication for the Blob service. Create an NSG named NSG1 that will have the custom inbound security rules shown in the following table.

Priority	Port	Protocol	Source	Destination	Action
500	3389	TCP	10.0.2.0/24	Any	Deny
1000	Any	ICMP	Any	VirtualNetwork	Allow

Associate NSG1 to the network interface of VM1.

Create an NSG named NSG2 that will have the custom outbound security rules shown in the following table.

Priority	Port	Protocol	Source	Destination	Action
200	3389	TCP	10.0.0.0/16	VirtualNetwork	Deny
400	Any	ICMP	10.0.2.0/24	10.0.1.0/24	Allow

Associate NSG2 to VNET1/Subnet2.

#### Technical Requirements -

Contoso must meet the following technical requirements:

Create container1 and share1.

Use the principle of least privilege.

Create an Azure AD security group named Group4.

Back up the Azure file shares and virtual machines by using Azure Backup.

Trigger an alert if VM1 or VM2 has less than 20 GB of free space on volume C.

Enable User1 to create Azure policy definitions and User2 to assign Azure policies to RG1.

Create an internal Basic Azure Load Balancer named LB1 and connect the load balancer to VNET1/Subnet1

Enable flow logging for IP traffic from VM5 and retain the flow logs for a period of eight months.

Whenever possible, grant Group4 Azure role-based access control (Azure RBAC) read-only permissions to the Azure file shares. **QuestionHOTSPOT -**

You need to create storage5. The solution must support the planned changes.

Which type of storage account should you use, and which account should you configure as the destination storage account? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point. Hot

Area:

### Answer Area

Account kind:

BlobStorage
BlockBlobStorage
Storage (general purpose v1)
StorageV2 (general purpose v2)

Destination:

Storage1
Storage2
Storage3
Storage4

Correct

Answer:

### Answer Area

Account kind:

BlobStorage
BlockBlobStorage
Storage (general purpose v1)
StorageV2 (general purpose v2)

Destination:

Storage1
Storage2
Storage3
Storage4

Reference: <https://docs.microsoft.com/en-us/azure/storage/blobs/object-replication-configure?tabs=portal>

Question #3 Topic 11

**Introductory Info** Case study -

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Overview -

General Overview -

Contoso, Ltd. is a consulting company that has a main office in Montreal and branch offices in Seattle and New York.

Environment -

Existing Environment -

Contoso has an Azure subscription named Sub1 that is linked to an Azure Active Directory (Azure AD) tenant. The network contains an on-premises Active Directory domain that syncs to the Azure AD tenant.

The Azure AD tenant contains the users shown in the following table.

Name	Type	Role
User1	Member	<b>None</b>
User2	Guest	<b>None</b>
User3	Member	<b>None</b>
User4	Member	<b>None</b>

Sub1 contains two resource groups named RG1 and RG2 and the virtual networks shown in the following table.

Name	Subnet	Peered with
VNET1	Subnet1, Subnet2	VNET2
VNET2	Subnet1	VNET1, VNET3
VNET3	Subnet1	VNET2
VNET4	Subnet1	<b>None</b>

User1 manages the resources in RG1. User4 manages the resources in RG2.

Sub1 contains virtual machines that run Windows Server 2019 as shown in the following table

Name	IP address	Location	Connected to
VM1	10.0.1.4	West US	VNET1/Subnet1
VM2	10.0.2.4	West US	VNET1/Subnet2
VM3	172.16.1.4	Central US	VNET2/Subnet1
VM4	192.168.1.4	West US	VNET3/Subnet1
VM5	10.0.22.4	East US	VNET4/Subnet1

No network security groups (NSGs) are associated to the network interfaces or the subnets. Sub1 contains the storage accounts shown in the following table.

Name	Kind	Location	File share	Identity-based access for file share
storage1	Storage (general purpose v1)	West US	sharea	Azure Active Directory Domain Services (Azure AD DS)
storage2	StorageV2 (general purpose v2)	East US	shareb, sharec	Disabled
storage3	BlobStorage	East US 2	Not applicable	Not applicable
storage4	FileStorage	Central US	shared	Azure Active Directory Domain Services (Azure AD DS)

Requirements -

Planned Changes -

Contoso plans to implement the following changes:

Create a blob container named container1 and a file share named share1 that will use the Cool storage tier.

Create a storage account named storage5 and configure storage replication for the Blob service. Create an NSG named NSG1 that will have the custom inbound security rules shown in the following table.

Priority	Port	Protocol	Source	Destination	Action
500	3389	TCP	10.0.2.0/24	Any	Deny
1000	Any	ICMP	Any	VirtualNetwork	Allow

Associate NSG1 to the network interface of VM1.

Create an NSG named NSG2 that will have the custom outbound security rules shown in the following table.

Priority	Port	Protocol	Source	Destination	Action
200	3389	TCP	10.0.0.0/16	VirtualNetwork	Deny
400	Any	ICMP	10.0.2.0/24	10.0.1.0/24	Allow

Associate NSG2 to VNET1/Subnet2.

Technical Requirements -

Contoso must meet the following technical requirements:

Create container1 and share1.

Use the principle of least privilege.

Create an Azure AD security group named Group4.

Back up the Azure file shares and virtual machines by using Azure Backup.

Trigger an alert if VM1 or VM2 has less than 20 GB of free space on volume C.

Enable User1 to create Azure policy definitions and User2 to assign Azure policies to RG1.

Create an internal Basic Azure Load Balancer named LB1 and connect the load balancer to VNET1/Subnet1

Enable flow logging for IP traffic from VM5 and retain the flow logs for a period of eight months.

Whenever possible, grant Group4 Azure role-based access control (Azure RBAC) read-only permissions to the Azure file shares. **Question** You need to identify which storage account to use for the flow logging of IP traffic from VM5. The solution must meet the retention requirements. Which storage account should you identify?

- A. storage1
- B. storage2
- C. storage3
- D. storage4

**Correct Answer: C**

We use the BlobStorage account storage3 for retention.

Storage lifecycle management offers a rule-based policy that you can use to transition blob data to the appropriate access tiers or to expire data at the end of the data lifecycle.

Note: Enable flow logging for IP traffic from VM5 and retain the flow logs for a period of eight months.

Name	Kind	Location	File share	Identity-based access for file share
storage1	Storage (general purpose v1)	West US	sharea	Azure Active Directory Domain Services (Azure AD DS)
storage2	StorageV2 (general purpose v2)	East US	shareb, sharec	Disabled
storage3	BlobStorage	East US 2	<b>Not applicable</b>	<b>Not applicable</b>
storage4	FileStorage	Central US	shared	Azure Active Directory Domain Services (Azure AD DS)

Reference: <https://docs.microsoft.com/en-us/azure/storage/blobs/lifecycle-management-overview>  
<https://docs.microsoft.com/en-us/azure/network-watcher/network-watcher-nsg-flow-logging-overview>

**Topic 12 - Testlet 5**

Question #1 **Topic 12**

**Introductory Info** Case study -

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must manage your time to ensure that you are able to complete all questions included on this exam in the time provided.

To answer the questions included in a case study, you will need to reference information that is provided in the case study. Case studies might contain exhibits and other resources that provide more information about the scenario that is described in the case study. Each question is independent of the other questions in this case study.

At the end of this case study, a review screen will appear. This screen allows you to review your answers and to make changes before you move to the next section of the exam. After you begin a new section, you cannot return to this section.

To start the case study -

To display the first question in this case study, click the Next button. Use the buttons in the left pane to explore the content of the case study before you answer the questions. Clicking these buttons displays information such as business requirements, existing environment, and problem statements. If the case study has an All Information tab, note that the information displayed is identical to the information displayed on the subsequent tabs. When you are ready to answer a question, click the Question button to return to the question.

Overview -

Litware, Inc. is a consulting company that has a main office in Montreal and two branch offices in Seattle and New York.

The Montreal office has 2,000 employees. The Seattle office has 1,000 employees. The New York office has 200 employees.

All the resources used by Litware are hosted on-premises.

Litware creates a new Azure subscription. The Azure Active Directory (Azure AD) tenant uses a domain named litware.onmicrosoft.com. The tenant uses the Premium P1 pricing tier.

Existing Environment -

The network contains an Active Directory forest named litware.com. All domain controllers are configured as DNS servers and host the litware.com DNS zone.

Litware has finance, human resources, sales, research, and information technology departments. Each department has an organizational unit (OU) that contains all the accounts of that respective department. All the user accounts have the department attribute set to their respective department. New users are added frequently.

Litware.com contains a user named User1.

All the offices connect by using private connections.

Litware has data centers in the Montreal and Seattle offices. Each office has a firewall that can be configured as a VPN device.

All infrastructure servers are virtualized. The virtualization environment contains the servers in the following table.

Name	Role	Contains virtual machine
Server1	VMware vCenter server	VM1
Server2	Hyper-V host	VM2

Litware uses two web applications named App1 and App2. Each instance on each web application requires 1 GB of memory.

The Azure subscription contains the resources in the following table.

Name	Type
VNet1	Virtual network
VM3	Virtual machine
VM4	Virtual machine

The network security team implements several network security groups (NSGs)

Requirements -

Planned Changes -

Litware plans to implement the following changes:

Deploy Azure ExpressRoute to the Montreal office.

Migrate the virtual machines hosted on Server1 and Server2 to Azure.

Synchronize on-premises Active Directory to Azure Active Directory (Azure AD).

Migrate App1 and App2 to two Azure web apps named WebApp1 and WebApp2.

Technical Requirements -

Litware must meet the following technical requirements:

Ensure that WebApp1 can adjust the number of instances automatically based on the load and can scale up to five instances.

▪

Ensure that VM3 can establish outbound connections over TCP port 8080 to the applications servers in the Montreal office.

Ensure that routing information is exchanged automatically between Azure and the routers in the Montreal office.

Enable Azure Multi-Factor Authentication (MFA) for the users in the finance department only.

Ensure that webapp2.azurewebsites.net can be accessed by using the name app2.litware.com.

Connect the New York office to VNet1 over the Internet by using an encrypted connection.

Create a workflow to send an email message when the settings of VM4 are modified.

Create a custom Azure role named Role1 that is based on the Reader role.

Minimize costs whenever possible. **Question** You discover that VM3 does NOT meet the technical requirements.

You need to verify whether the issue relates to the NSGs. What should you use?

- A. Diagram in VNet1
- B. Diagnostic settings in Azure Monitor
- C. Diagnose and solve problems in Traffic Manager profiles
- D. The security recommendations in Azure Advisor
- E. IP flow verify in Azure Network Watcher

**Correct Answer: E**

Scenario: Contoso must meet technical requirements including:

Ensure that VM3 can establish outbound connections over TCP port 8080 to the applications servers in the Montreal office.

IP flow verify checks if a packet is allowed or denied to or from a virtual machine. The information consists of direction, protocol, local IP, remote IP, local port, and remote port. If the packet is denied by a security group, the name of the rule that denied the packet is returned. While any source or destination IP can be chosen,

IP flow verify helps administrators quickly diagnose connectivity issues from or to the internet and from or to the on-premises environment.

Reference: <https://docs.microsoft.com/en-us/azure/network-watcher/network-watcher-ip-flow-verify-overview>

### **Topic 13 - Testlet 6**

#### **Question #1** *Topic 13*

##### **Introductory Info** Case study -

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##### To start the case study -

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##### Overview -

Litware, Inc. is a consulting company that has a main office in Montreal and two branch offices in Seattle and New York.

The Montreal office has 2,000 employees. The Seattle office has 1,000 employees. The New York office has 200 employees.

All the resources used by Litware are hosted on-premises.

Litware creates a new Azure subscription. The Azure Active Directory (Azure AD) tenant uses a domain named litware.onmicrosoft.com. The tenant uses the Premium P1 pricing tier.

##### Existing Environment -

The network contains an Active Directory forest named litware.com. All domain controllers are configured as DNS servers and host the litware.com DNS zone.

Litware has finance, human resources, sales, research, and information technology departments. Each department has an organizational unit (OU) that contains all the accounts of that respective department. All the user accounts have the department attribute set to their respective department. New users are added frequently.

Litware.com contains a user named User1.

All the offices connect by using private connections.

Litware has data centers in the Montreal and Seattle offices. Each office has a firewall that can be configured as a VPN device.

All infrastructure servers are virtualized. The virtualization environment contains the servers in the following table.

Name	Role	Contains virtual machine
Server1	VMware vCenter server	VM1
Server2	Hyper-V host	VM2

Litware uses two web applications named App1 and App2. Each instance on each web application requires 1 GB of memory.

The Azure subscription contains the resources in the following table.

Name	Type
VNet1	Virtual network
VM3	Virtual machine
VM4	Virtual machine

The network security team implements several network security groups (NSGs)

Requirements -

Planned Changes -

Litware plans to implement the following changes:

Deploy Azure ExpressRoute to the Montreal office.

Migrate the virtual machines hosted on Server1 and Server2 to Azure.

Synchronize on-premises Active Directory to Azure Active Directory (Azure AD).

Migrate App1 and App2 to two Azure web apps named WebApp1 and WebApp2.

Technical Requirements -

Litware must meet the following technical requirements:

Ensure that WebApp1 can adjust the number of instances automatically based on the load and can scale up to five instances.

- Ensure that VM3 can establish outbound connections over TCP port 8080 to the applications servers in the Montreal office.

- Ensure that routing information is exchanged automatically between Azure and the routers in the Montreal office.

- Enable Azure Multi-Factor Authentication (MFA) for the users in the finance department only.

- Ensure that webapp2.azurewebsites.net can be accessed by using the name app2.litware.com.

- Connect the New York office to VNet1 over the Internet by using an encrypted connection.

- Create a workflow to send an email message when the settings of VM4 are modified.

- Create a custom Azure role named Role1 that is based on the Reader role.

Minimize costs whenever possible. **Question** You need to ensure that VM1 can communicate with VM4.

The solution must minimize the administrative effort. What should you do?

- A. Create an NSG and associate the NSG to VM1 and VM4.
- B. Establish peering between VNET1 and VNET3.
- C. Assign VM4 an IP address of 10.0.1.5/24.
- D. Create a user-defined route from VNET1 to VNET3.

**Correct Answer:** B Reference:

<https://docs.microsoft.com/en-us/azure/vpn-gateway/tutorial-site-to-site-portal>

Question #2 *Topic 13*

**Introductory Info** Case study -

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The Montreal office has 2,000 employees. The Seattle office has 1,000 employees. The New York office has 200 employees.

All the resources used by Litware are hosted on-premises.

Litware creates a new Azure subscription. The Azure Active Directory (Azure AD) tenant uses a domain named litware.onmicrosoft.com. The tenant uses the Premium P1 pricing tier.

Existing Environment -

The network contains an Active Directory forest named litware.com. All domain controllers are configured as DNS servers and host the litware.com DNS zone.

Litware has finance, human resources, sales, research, and information technology departments. Each department has an organizational unit (OU) that contains all the accounts of that respective department.

All the user accounts have the department attribute set to their respective department. New users are added frequently.

Litware.com contains a user named User1.

All the offices connect by using private connections.

Litware has data centers in the Montreal and Seattle offices. Each office has a firewall that can be configured as a VPN device.

All infrastructure servers are virtualized. The virtualization environment contains the servers in the following table.

Name	Role	Contains virtual machine
Server1	VMware vCenter server	VM1
Server2	Hyper-V host	VM2

Litware uses two web applications named App1 and App2. Each instance on each web application requires 1 GB of memory.

The Azure subscription contains the resources in the following table.

Name	Type
VNet1	Virtual network
VM3	Virtual machine
VM4	Virtual machine

The network security team implements several network security groups (NSGs)

Requirements -

Planned Changes -

Litware plans to implement the following changes:

Deploy Azure ExpressRoute to the Montreal office.

Migrate the virtual machines hosted on Server1 and Server2 to Azure.

Synchronize on-premises Active Directory to Azure Active Directory (Azure AD).

Migrate App1 and App2 to two Azure web apps named WebApp1 and WebApp2.

Technical Requirements -

Litware must meet the following technical requirements:

Ensure that WebApp1 can adjust the number of instances automatically based on the load and can scale up to five instances.

■

Ensure that VM3 can establish outbound connections over TCP port 8080 to the applications servers in the Montreal office.

Ensure that routing information is exchanged automatically between Azure and the routers in the Montreal office.

Enable Azure Multi-Factor Authentication (MFA) for the users in the finance department only.

Ensure that webapp2.azurewebsites.net can be accessed by using the name app2.litware.com.

Connect the New York office to VNet1 over the Internet by using an encrypted connection.

Create a workflow to send an email message when the settings of VM4 are modified.

Create a custom Azure role named Role1 that is based on the Reader role.

Minimize costs whenever possible.**QuestionHOTSPOT** -

You need to meet the connection requirements for the New York office.

What should you do? To answer, select the appropriate options in the answer area. NOTE:

Each correct selection is worth one point.

Hot Area:

## Answer Area

From the Azure portal:

- Create an ExpressRoute circuit only.
- Create a virtual network gateway only.
- Create a virtual network gateway and a local network gateway.
- Create an ExpressRoute circuit and an on-premises data gateway.
- Create a virtual network gateway and an on-premises data gateway.

In the New York office:

- Deploy ExpressRoute.
- Deploy a DirectAccess server.
- Implement a Web Application Proxy.
- Configure a site-to-site VPN connection.

Correct

Answer:

## Answer Area

From the Azure portal:

- Create an ExpressRoute circuit only.
- Create a virtual network gateway only.
- Create a virtual network gateway and a local network gateway.
- Create an ExpressRoute circuit and an on-premises data gateway.
- Create a virtual network gateway and an on-premises data gateway.

In the New York office:

- Deploy ExpressRoute.
- Deploy a DirectAccess server.
- Implement a Web Application Proxy.
- Configure a site-to-site VPN connection.

Box 1: Create a virtual network gateway and a local network gateway.

Azure VPN gateway. The VPN gateway service enables you to connect the VNet to the on-premises network through a VPN appliance. For more information, see

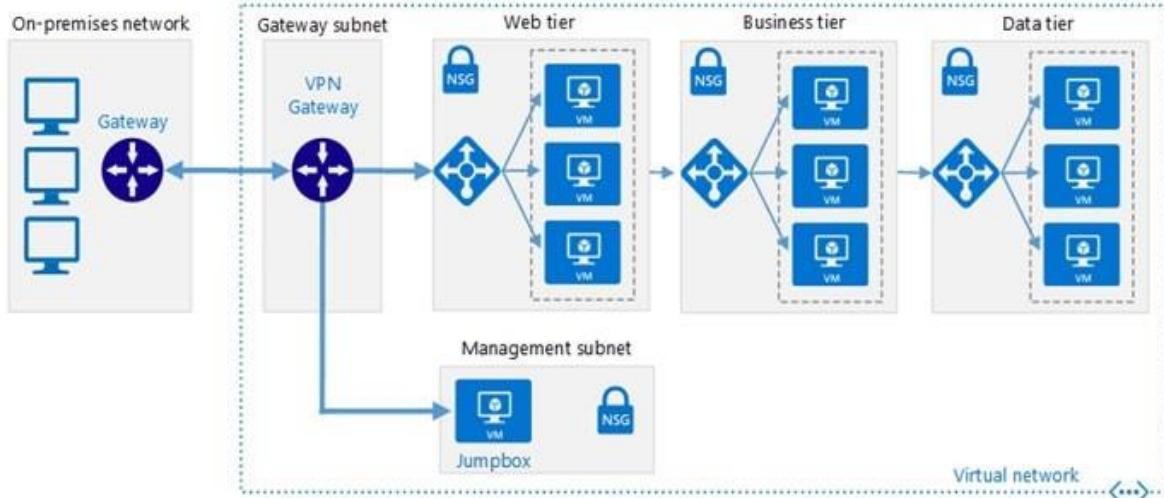
Connect an on-premises network to a Microsoft Azure virtual network. The VPN gateway includes the following elements:

- Virtual network gateway. A resource that provides a virtual VPN appliance for the VNet. It is responsible for routing traffic from the on-premises network to the VNet.
- Local network gateway. An abstraction of the on-premises VPN appliance. Network traffic from the cloud application to the on-premises network is routed through this gateway.
- Connection. The connection has properties that specify the connection type (IPSec) and the key shared with the on-premises VPN appliance to encrypt traffic.

☞ Gateway subnet. The virtual network gateway is held in its own subnet, which is subject to various requirements, described in the Recommendations section below.

#### Box 2: Configure a site-to-site VPN connection

On premises create a site-to-site connection for the virtual network gateway and the local network gateway.



Scenario: Connect the New York office to VNet1 over the Internet by using an encrypted connection.

Incorrect Answers:

Azure ExpressRoute: Established between your network and Azure, through an ExpressRoute partner.

This connection is private. Traffic does not go over the internet.

Reference: <https://docs.microsoft.com/en-us/azure/architecture/reference-architectures/hybrid-networking/vpn> **Topic 14 - Testlet 7**

Question #1 **Topic 14**

**Introductory Info** Case study -

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Overview -

Contoso, Ltd. is a manufacturing company that has offices worldwide. Contoso works with partner organizations to bring products to market.

Contoso products are manufactured by using blueprint files that the company authors and maintains.

#### Existing Environment -

Currently, Contoso uses multiple types of servers for business operations, including the following: File servers

Domain controllers

Microsoft SQL Server servers

Your network contains an Active Directory forest named contoso.com. All servers and client computers are joined to Active Directory.

You have a public-facing application named App1. App1 is comprised of the following three tiers: A

SQL database

A web front end

A processing middle tier -



Each tier is comprised of five virtual machines. Users access the web front end by using HTTPS only.

#### Requirements -

##### Planned Changes -

Contoso plans to implement the following changes to the infrastructure:

Move all the tiers of App1 to Azure.

Move the existing product blueprint files to Azure Blob storage.

Create a hybrid directory to support an upcoming Microsoft 365 migration project.

##### Technical Requirements -

Contoso must meet the following technical requirements:

Move all the virtual machines for App1 to Azure.

Minimize the number of open ports between the App1 tiers.

Ensure that all the virtual machines for App1 are protected by backups.

Copy the blueprint files to Azure over the Internet.

Ensure that the blueprint files are stored in the archive storage tier.

Ensure that partner access to the blueprint files is secured and temporary.

Prevent user passwords or hashes of passwords from being stored in Azure.

Use unmanaged standard storage for the hard disks of the virtual machines.

Ensure that when users join devices to Azure Active Directory (Azure AD), the users use a mobile phone to verify their identity.

Minimize administrative effort whenever possible.

##### User Requirements -

Contoso identifies the following requirements for users:

Ensure that only users who are part of a group named Pilot can join devices to Azure AD.

Designate a new user named Admin1 as the service admin for the Azure subscription.

Admin1 must receive email alerts regarding service outages.

Ensure that a new user named User3 can create network objects for the Azure subscription.**QuestionHOTSPOT -**

You need to recommend a solution for App1. The solution must meet the technical requirements. What should you include in the recommendation? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

## Answer Area

Number of virtual networks:

1
2
3

Number of subnets per virtual network:

1
2
3

Correct

Answer:

## Answer Area

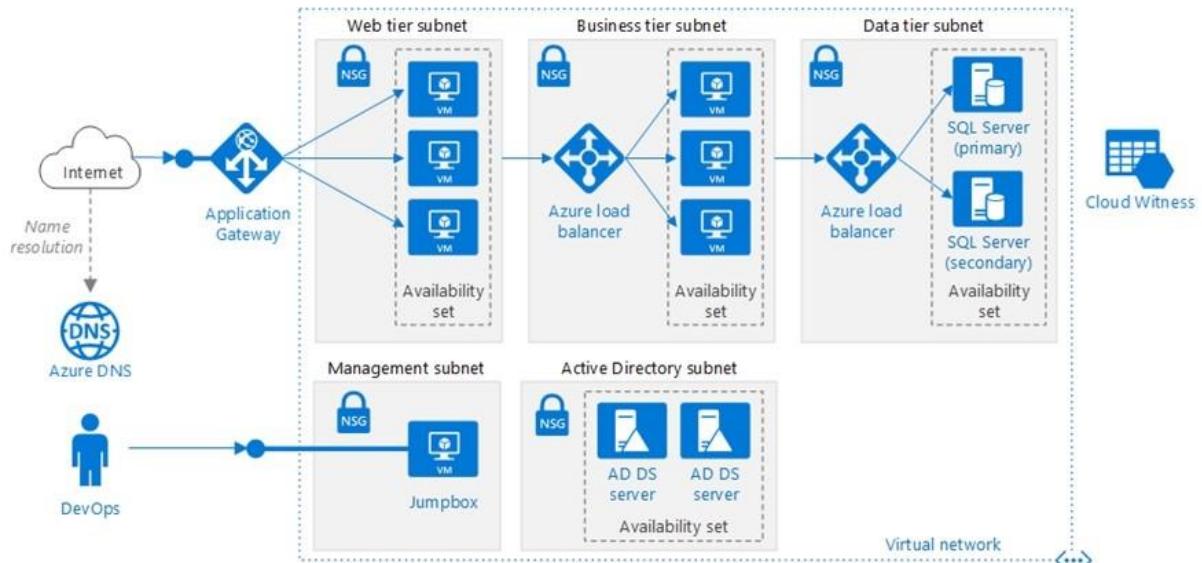
Number of virtual networks:

1
2
3

Number of subnets per virtual network:

1
2
3

This reference architecture shows how to deploy VMs and a virtual network configured for an N-tier application, using SQL Server on Windows for the data tier.



Scenario: You have a public-facing application named App1. App1 is comprised of the following three tiers:

- A SQL database
- A web front end □ A processing middle tier

Each tier is comprised of five virtual machines. Users access the web front end by using HTTPS only. Technical requirements include:

- Move all the virtual machines for App1 to Azure.

- Minimize the number of open ports between the App1 tiers.

Reference: <https://docs.microsoft.com/en-us/azure/architecture/reference-architectures/n-tier/n-tier-sql-server>  
Question #2 Topic 14

#### Introductory Info Case study -

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#### Overview -

Contoso, Ltd. is a manufacturing company that has offices worldwide. Contoso works with partner organizations to bring products to market.

Contoso products are manufactured by using blueprint files that the company authors and maintains.

Existing Environment -

Currently, Contoso uses multiple types of servers for business operations, including the following: File servers

Domain controllers

Microsoft SQL Server servers

Your network contains an Active Directory forest named contoso.com. All servers and client computers are joined to Active Directory.

You have a public-facing application named App1. App1 is comprised of the following three tiers: A SQL database

A web front end

A processing middle tier -

- Each tier is comprised of five virtual machines. Users access the web front end by using HTTPS only.

Requirements -

Planned Changes -

Contoso plans to implement the following changes to the infrastructure:

Move all the tiers of App1 to Azure.

Move the existing product blueprint files to Azure Blob storage.

Create a hybrid directory to support an upcoming Microsoft 365 migration project.

Technical Requirements -

Contoso must meet the following technical requirements:

Move all the virtual machines for App1 to Azure.

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Ensure that all the virtual machines for App1 are protected by backups.

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Ensure that when users join devices to Azure Active Directory (Azure AD), the users use a mobile phone to verify their identity.

Minimize administrative effort whenever possible.

User Requirements -

Contoso identifies the following requirements for users:

Ensure that only users who are part of a group named Pilot can join devices to Azure AD.

Designate a new user named Admin1 as the service admin for the Azure subscription.

Admin1 must receive email alerts regarding service outages.

Ensure that a new user named User3 can create network objects for the Azure subscription. **Question** You are planning the move of App1 to Azure.

You create a network security group (NSG).

You need to recommend a solution to provide users with access to App1. What should you recommend?

- A. Create an incoming security rule for port 443 from the Internet. Associate the NSG to the subnet that contains the web servers.
- B. Create an outgoing security rule for port 443 from the Internet. Associate the NSG to the subnet that contains the web servers.
- C. Create an incoming security rule for port 443 from the Internet. Associate the NSG to all the subnets.
- D. Create an outgoing security rule for port 443 from the Internet. Associate the NSG to all the subnets.

**Correct Answer:** A

Incoming and the web server subnet only, as users access the web front end by using HTTPS only. Note Scenario: You have a public-facing application named App1. App1 is comprised of the following three tiers:

- A SQL database
- A web front end
- A processing middle tier

Each tier is comprised of five virtual machines. Users access the web front end by using HTTPS only.

**Topic 15 - Testlet 8**

**Question #1** *Topic 15*

**Introductory Info** Case study -

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Overview -

General Overview -

Contoso, Ltd. is a consulting company that has a main office in Montreal and branch offices in Seattle and New York.

Environment -

Existing Environment -

Contoso has an Azure subscription named Sub1 that is linked to an Azure Active Directory (Azure AD) tenant. The network contains an on-premises Active Directory domain that syncs to the Azure AD tenant.

The Azure AD tenant contains the users shown in the following table.

Name	Type	Role
User1	Member	<b>None</b>
User2	Guest	<b>None</b>
User3	Member	<b>None</b>
User4	Member	<b>None</b>

Sub1 contains two resource groups named RG1 and RG2 and the virtual networks shown in the following table.

Name	Subnet	Peered with
VNET1	Subnet1, Subnet2	VNET2
VNET2	Subnet1	VNET1, VNET3
VNET3	Subnet1	VNET2
VNET4	Subnet1	<b>None</b>

User1 manages the resources in RG1. User4 manages the resources in RG2.

Sub1 contains virtual machines that run Windows Server 2019 as shown in the following table

Name	IP address	Location	Connected to
VM1	10.0.1.4	West US	VNET1/Subnet1
VM2	10.0.2.4	West US	VNET1/Subnet2
VM3	172.16.1.4	Central US	VNET2/Subnet1
VM4	192.168.1.4	West US	VNET3/Subnet1
VM5	10.0.22.4	East US	VNET4/Subnet1

No network security groups (NSGs) are associated to the network interfaces or the subnets. Sub1 contains the storage accounts shown in the following table.

Name	Kind	Location	File share	Identity-based access for file share
storage1	Storage (general purpose v1)	West US	sharea	Azure Active Directory Domain Services (Azure AD DS)
storage2	StorageV2 (general purpose v2)	East US	shareb, sharec	Disabled
storage3	BlobStorage	East US 2	Not applicable	Not applicable
storage4	FileStorage	Central US	shared	Azure Active Directory Domain Services (Azure AD DS)

Requirements -

#### Planned Changes -

Contoso plans to implement the following changes:

Create a blob container named container1 and a file share named share1 that will use the Cool storage tier.

Create a storage account named storage5 and configure storage replication for the Blob service. Create an NSG named NSG1 that will have the custom inbound security rules shown in the following table.

Priority	Port	Protocol	Source	Destination	Action
500	3389	TCP	10.0.2.0/24	Any	Deny
1000	Any	ICMP	Any	VirtualNetwork	Allow

Associate NSG1 to the network interface of VM1.

Create an NSG named NSG2 that will have the custom outbound security rules shown in the following table.

Priority	Port	Protocol	Source	Destination	Action
200	3389	TCP	10.0.0.0/16	VirtualNetwork	Deny
400	Any	ICMP	10.0.2.0/24	10.0.1.0/24	Allow

Associate NSG2 to VNET1/Subnet2.

#### Technical Requirements -

Contoso must meet the following technical requirements:

Create container1 and share1.

Use the principle of least privilege.

Create an Azure AD security group named Group4.

Back up the Azure file shares and virtual machines by using Azure Backup.

Trigger an alert if VM1 or VM2 has less than 20 GB of free space on volume C.

Enable User1 to create Azure policy definitions and User2 to assign Azure policies to RG1.

Create an internal Basic Azure Load Balancer named LB1 and connect the load balancer to VNET1/Subnet1

Enable flow logging for IP traffic from VM5 and retain the flow logs for a period of eight months.

Whenever possible, grant Group4 Azure role-based access control (Azure RBAC) read-only permissions to the Azure file shares.**QuestionHOTSPOT** -

You implement the planned changes for NSG1 and NSG2.

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point. Hot Area:

**Answer Area:**

Statements	Yes	No
From VM1, you can establish a Remote Desktop session to VM2.	<input type="radio"/>	<input type="radio"/>
From VM2, you can ping VM3.	<input type="radio"/>	<input type="radio"/>
From VM2, you can establish a Remote Desktop session to VM3.	<input type="radio"/>	<input type="radio"/>

**Correct**

**Answer:**

**Answer Area:**

Statements	Yes	No
From VM1, you can establish a Remote Desktop session to VM2.	<input type="radio"/>	<input checked="" type="radio"/>
From VM2, you can ping VM3.	<input checked="" type="radio"/>	<input type="radio"/>
From VM2, you can establish a Remote Desktop session to VM3.	<input type="radio"/>	<input checked="" type="radio"/>

Box 1: No -

NSG2 blocks RDP to VM2 -

Box 2: Yes -

ICMP is not blocked -

Box 3: No -

NSG2 blocks RDP from VM2 - Reference:

<https://docs.microsoft.com/en-us/azure/virtual-network/network-security-group-how-it-works>

Question #2 *Topic 15*

**Introductory Info** Case study -

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Environment -

Existing Environment -

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Sub1 contains two resource groups named RG1 and RG2 and the virtual networks shown in the following table.

Name	Subnet	Peered with
VNET1	Subnet1, Subnet2	VNET2
VNET2	Subnet1	VNET1, VNET3
VNET3	Subnet1	VNET2
VNET4	Subnet1	<b>None</b>

User1 manages the resources in RG1. User4 manages the resources in RG2.

Sub1 contains virtual machines that run Windows Server 2019 as shown in the following table

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storage3	BlobStorage	East US 2	Not applicable	Not applicable
storage4	FileStorage	Central US	shared	Azure Active Directory Domain Services (Azure AD DS)

Requirements -

Planned Changes -

Contoso plans to implement the following changes:

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1000	Any	ICMP	Any	VirtualNetwork	Allow

Associate NSG1 to the network interface of VM1.

Create an NSG named NSG2 that will have the custom outbound security rules shown in the following table.

Priority	Port	Protocol	Source	Destination	Action
200	3389	TCP	10.0.0.0/16	VirtualNetwork	Deny
400	Any	ICMP	10.0.2.0/24	10.0.1.0/24	Allow

Associate NSG2 to VNET1/Subnet2.

Technical Requirements -

Contoso must meet the following technical requirements:

Create container1 and share1.

Use the principle of least privilege.

Create an Azure AD security group named Group4.

Back up the Azure file shares and virtual machines by using Azure Backup.

Trigger an alert if VM1 or VM2 has less than 20 GB of free space on volume C.

Enable User1 to create Azure policy definitions and User2 to assign Azure policies to RG1.

Create an internal Basic Azure Load Balancer named LB1 and connect the load balancer to VNET1/Subnet1

Enable flow logging for IP traffic from VM5 and retain the flow logs for a period of eight months.

Whenever possible, grant Group4 Azure role-based access control (Azure RBAC) read-only permissions to the Azure file shares. **Question** You need to ensure that you can add VM1 and VM2 to the backend pool of LB1.

What should you do first?

- A. Redeploy VM1 and VM2 to the same availability zone.
- B. Connect VM2 to VNET1/Subnet1.
- C. Create a new NSG and associate the NSG to VNET1/Subnet1.
- D. Redeploy VM1 and VM2 to the same availability set.

**Correct Answer: B**

Need to connect VM2 to VNET1/Subnet1.

Scenario: Create an internal Basic Azure Load Balancer named LB1 and connect the load balancer to VNET1/Subnet1.

Name	IP address	Location	Connected to
VM1	10.0.1.4	West US	VNET1/Subnet1
VM2	10.0.2.4	West US	VNET1/Subnet2

Question #3 *Topic 15*

**Introductory InfoCase study -**

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To start the case study -

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Overview -

General Overview -

Contoso, Ltd. is a consulting company that has a main office in Montreal and branch offices in Seattle and New York.

Environment -

Existing Environment -

Contoso has an Azure subscription named Sub1 that is linked to an Azure Active Directory (Azure AD) tenant. The network contains an on-premises Active Directory domain that syncs to the Azure AD tenant.

The Azure AD tenant contains the users shown in the following table.

Name	Type	Role
User1	Member	<b>None</b>
User2	Guest	<b>None</b>
User3	Member	<b>None</b>
User4	Member	<b>None</b>

Sub1 contains two resource groups named RG1 and RG2 and the virtual networks shown in the following table.

Name	Subnet	Peered with
VNET1	Subnet1, Subnet2	VNET2
VNET2	Subnet1	VNET1, VNET3
VNET3	Subnet1	VNET2
VNET4	Subnet1	<b>None</b>

User1 manages the resources in RG1. User4 manages the resources in RG2.

Sub1 contains virtual machines that run Windows Server 2019 as shown in the following table

Name	IP address	Location	Connected to
VM1	10.0.1.4	West US	VNET1/Subnet1
VM2	10.0.2.4	West US	VNET1/Subnet2
VM3	172.16.1.4	Central US	VNET2/Subnet1
VM4	192.168.1.4	West US	VNET3/Subnet1
VM5	10.0.22.4	East US	VNET4/Subnet1

No network security groups (NSGs) are associated to the network interfaces or the subnets.

Sub1 contains the storage accounts shown in the following table.

Name	Kind	Location	File share	Identity-based access for file share
storage1	Storage (general purpose v1)	West US	sharea	Azure Active Directory Domain Services (Azure AD DS)
storage2	StorageV2 (general purpose v2)	East US	shareb, sharec	Disabled
storage3	BlobStorage	East US 2	<b>Not applicable</b>	<b>Not applicable</b>
storage4	FileStorage	Central US	shared	Azure Active Directory Domain Services (Azure AD DS)

Requirements -

Planned Changes -

Contoso plans to implement the following changes:

Create a blob container named container1 and a file share named share1 that will use the Cool storage tier.

Create a storage account named storage5 and configure storage replication for the Blob service. Create an NSG named NSG1 that will have the custom inbound security rules shown in the following table.

Priority	Port	Protocol	Source	Destination	Action
500	3389	TCP	10.0.2.0/24	Any	Deny
1000	Any	ICMP	Any	VirtualNetwork	Allow

Associate NSG1 to the network interface of VM1.

Create an NSG named NSG2 that will have the custom outbound security rules shown in the following table.

Priority	Port	Protocol	Source	Destination	Action
200	3389	TCP	10.0.0.0/16	VirtualNetwork	Deny
400	Any	ICMP	10.0.2.0/24	10.0.1.0/24	Allow

Associate NSG2 to VNET1/Subnet2.

Technical Requirements -

Contoso must meet the following technical requirements:

Create container1 and share1.

Use the principle of least privilege.

Create an Azure AD security group named Group4.

Back up the Azure file shares and virtual machines by using Azure Backup.

Trigger an alert if VM1 or VM2 has less than 20 GB of free space on volume C.

Enable User1 to create Azure policy definitions and User2 to assign Azure policies to RG1.

Create an internal Basic Azure Load Balancer named LB1 and connect the load balancer to VNET1/Subnet1

Enable flow logging for IP traffic from VM5 and retain the flow logs for a period of eight months.

Whenever possible, grant Group4 Azure role-based access control (Azure RBAC) read-only permissions to the Azure file shares. **Question** You need to add VM1 and VM2 to the backend pool of LB1. What should you do first?

- A. Connect VM2 to VNET1/Subnet1.
- B. Redeploy VM1 and VM2 to the same availability zone.
- C. Redeploy VM1 and VM2 to the same availability set.
- D. Create a new NSG and associate the NSG to VNET1/Subnet1.

**Correct Answer:** A

Subnet1.

VM2 is on VNET1/Subnet2, and must be moved to VNET1/Subnet1.

Note:

Create an internal Basic Azure Load Balancer named LB1 and connect the load balancer to VNET1/Subnet1

Name	IP address	Location	Connected to
VM1	10.0.1.4	West US	VNET1/Subnet1
VM2	10.0.2.4	West US	VNET1/Subnet2
VM3	172.16.1.4	Central US	VNET2/Subnet1
VM4	192.168.1.4	West US	VNET3/Subnet1
VM5	10.0.22.4	East US	VNET4/Subnet1

Reference:

<https://docs.microsoft.com/en-us/azure/load-balancer/quickstart-load-balancer-standard-internal-portal>

Question #4 **Topic 15**

You need to ensure that VM1 can communicate with VM4. The solution must minimize administrative effort.

What should you do?

- A. Create a user-defined route from VNET1 to VNET3.
- B. Create an NSG and associate the NSG to VM1 and VM4.
- C. Assign VM4 an IP address of 10.0.1.5/24.
- D. Establish peering between VNET1 and VNET3.

**Correct Answer:** D

### Topic 16 - Testlet 9

Question #1 **Topic 16**

**Introductory Info** Case study -

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Overview -

Litware, Inc. is a consulting company that has a main office in Montreal and two branch offices in Seattle and New York.

The Montreal office has 2,000 employees. The Seattle office has 1,000 employees. The New York office has 200 employees.

All the resources used by Litware are hosted on-premises.

Litware creates a new Azure subscription. The Azure Active Directory (Azure AD) tenant uses a domain named litware.onmicrosoft.com. The tenant uses the Premium P1 pricing tier.

Existing Environment -

The network contains an Active Directory forest named litware.com. All domain controllers are configured as DNS servers and host the litware.com DNS zone.

Litware has finance, human resources, sales, research, and information technology departments. Each department has an organizational unit (OU) that contains all the accounts of that respective department. All the user accounts have the department attribute set to their respective department. New users are added frequently.

Litware.com contains a user named User1.

All the offices connect by using private connections.

Litware has data centers in the Montreal and Seattle offices. Each office has a firewall that can be configured as a VPN device.

All infrastructure servers are virtualized. The virtualization environment contains the servers in the following table.

Name	Role	Contains virtual machine
Server1	VMware vCenter server	VM1
Server2	Hyper-V host	VM2

Litware uses two web applications named App1 and App2. Each instance on each web application requires 1 GB of memory.

The Azure subscription contains the resources in the following table.

Name	Type
VNet1	Virtual network
VM3	Virtual machine
VM4	Virtual machine

The network security team implements several network security groups (NSGs)

Requirements -

Planned Changes -

Litware plans to implement the following changes:

Deploy Azure ExpressRoute to the Montreal office.

Migrate the virtual machines hosted on Server1 and Server2 to Azure.

Synchronize on-premises Active Directory to Azure Active Directory (Azure AD).

Migrate App1 and App2 to two Azure web apps named WebApp1 and WebApp2.

Technical Requirements -

Litware must meet the following technical requirements:

Ensure that WebApp1 can adjust the number of instances automatically based on the load and can scale up to five instances.

■ Ensure that VM3 can establish outbound connections over TCP port 8080 to the applications servers in the Montreal office.

Ensure that routing information is exchanged automatically between Azure and the routers in the Montreal office.

Enable Azure Multi-Factor Authentication (MFA) for the users in the finance department only.

Ensure that webapp2.azurewebsites.net can be accessed by using the name app2.litware.com.

Connect the New York office to VNet1 over the Internet by using an encrypted connection.

Create a workflow to send an email message when the settings of VM4 are modified.

Create a custom Azure role named Role1 that is based on the Reader role.

Minimize costs whenever possible. **QuestionHOTSPOT** - You need to implement Role1.

Which command should you run before you create Role1? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

**Answer Area**

Find-RoleCapability
Get-AzureADDirectoryRole
Get-AzRoleDefinition
Get-AzResourceProvider

-Name "Reader" |

ConvertFrom-Json
ConvertFrom-String
ConvertTo-Json
ConvertTo-Xml

**Correct**

**Answer:**

**Answer Area**

Find-RoleCapability
Get-AzureADDirectoryRole
Get-AzRoleDefinition
Get-AzResourceProvider

-Name "Reader" |

ConvertFrom-Json
ConvertFrom-String
ConvertTo-Json
ConvertTo-Xml

Question #2Topic 16

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The network contains an Active Directory forest named litware.com. All domain controllers are configured as DNS servers and host the litware.com DNS zone.

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The network security team implements several network security groups (NSGs)

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Enable Azure Multi-Factor Authentication (MFA) for the users in the finance department only.

Ensure that webapp2.azurewebsites.net can be accessed by using the name app2.litware.com.

Connect the New York office to VNet1 over the Internet by using an encrypted connection.

Create a workflow to send an email message when the settings of VM4 are modified.

Create a custom Azure role named Role1 that is based on the Reader role.

Minimize costs whenever possible. **Question** You need to recommend a solution to automate the configuration for the finance department users. The solution must meet the technical requirements. What should you include in the recommendation?

- A. Azure AD B2C
- B. dynamic groups and conditional access policies
- C. Azure AD Identity Protection
- D. an Azure logic app and the Microsoft Identity Management (MIM) client

**Correct Answer: B**

Scenario: Ensure Azure Multi-Factor Authentication (MFA) for the users in the finance department only.

The recommendation is to use conditional access policies that can then be targeted to groups of users, specific applications, or other conditions.

Reference:

<https://docs.microsoft.com/en-us/azure/active-directory/authentication/howto-mfa-userstates>