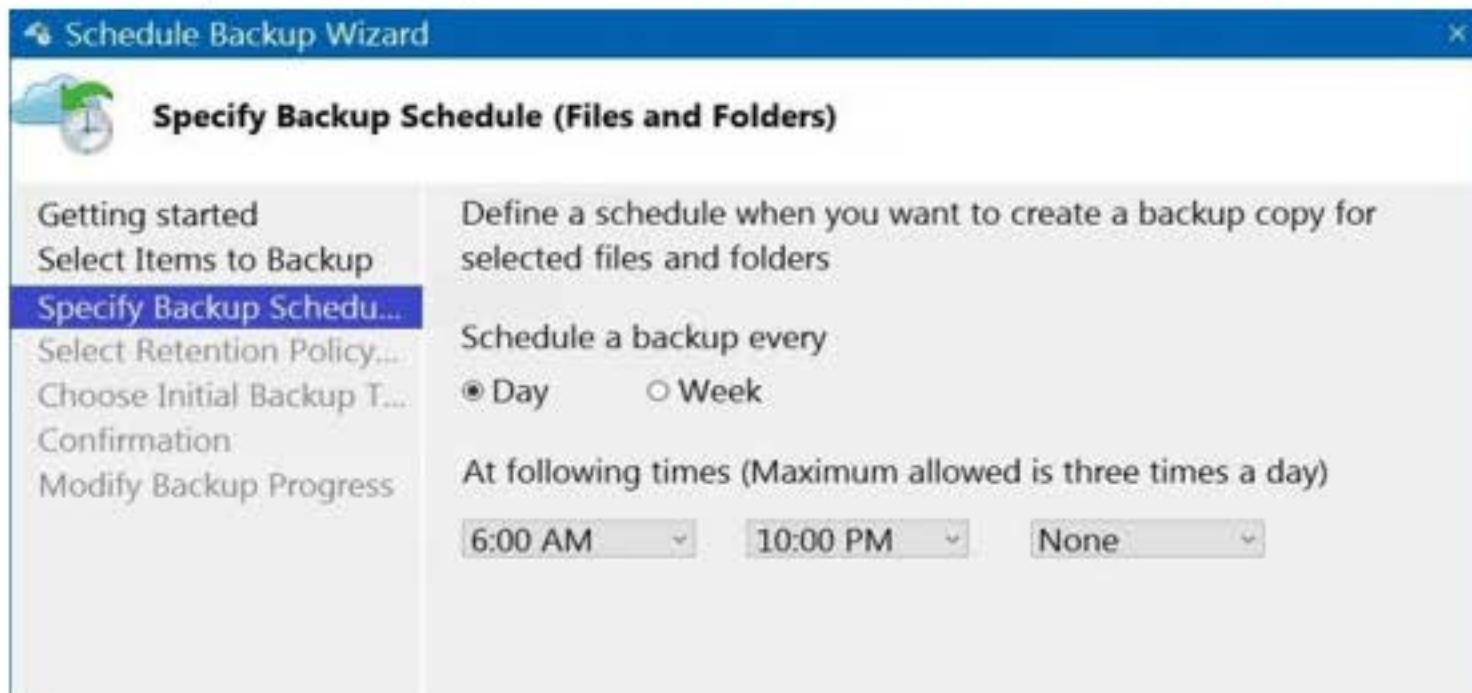


You have an Azure subscription that contains the resources shown in the following table.

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?

- From VM1, install the Windows Server Backup feature
- From VM2, install the Microsoft Azure Recovery Services Agent.
- From VM1, install the Microsoft Azure Recovery Services Agent.
- From VM2, install the Windows Server Backup feature.

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.

Blank(i) _____

- "copy": [
- "copyIndex": [
- "dependsOn": [

Blank(i) _____

- "[copy
- "[copyIndex
- "[dependsOn

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	Not applicable
RG2	Resource group	West Europe	Not applicable
RG3	Resource group	North Europe	Not applicable
VNET1	Virtual network	Central US	RG1
VM1	Virtual network	West US	RG2



Question : 3 ✓

Total: 49

Refer from above paragraph Q.No : 3

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?

Yes

No

Validate



Solution:

Explanation:

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>

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	Not applicable
RG2	Resource group	West Europe	Not applicable
RG3	Resource group	North Europe	Not applicable
VNET1	Virtual network	Central US	RG1
VM1	Virtual network	West US	RG2



Question : 4 ✓

Total: 49

Refer from above paragraph Q.No : 3

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?

Yes

No

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	Not applicable
RG2	Resource group	West Europe	Not applicable
RG3	Resource group	North Europe	Not applicable
VNET1	Virtual network	Central US	RG1
VM1	Virtual network	West US	RG2



Question : 5 ✓

Total: 49

Refer from above paragraph Q.No : 3

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?

Yes

No

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 Cloud Shell, you run `az aks`.

Does this meet the goal?

Yes

No

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 Cloud Shell, you run the kubectl client.

Does this meet the goal?



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?

Yes

No

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?

- VM1 is stopped.
- VM1 does not have the latest version of the Azure VM Agent (WaAppAgent.exe) installed.
- VM1 has an unmanaged disk.
- A Recovery Services vault is unavailable.

Validate ✓

Solution:

Explanation:

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/>

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?

Yes

No

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:

Blank(i) _____

- 0
- 1
- 2
- 3
- 4

Blank(i) _____

- 10
- 20
- 25
- 30
- 40
- 50

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?



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

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 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 : 13 ✓

Total: 49

Refer above paragraph Q.No : 13

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?

- Diagram in VNet1

- Diagnostic settings in Azure Monitor

- Diagnose and solve problems in Traffic Manager profiles

- The security recommendations in Azure Advisor

- IP flow verify in Azure Network Watcher

Validate ✓

Solution:

Explanation:

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>

Refer above paragraph Q.No : 13

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?

Yes

No

Validate ✓

Solution:

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>

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?

Yes

No

Validate ✓

Solution:

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>

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?

Yes

No

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?

- IP flow verify
- Connection troubleshoot
- Connection monitor
- NSG flow logs

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.

-
- Add a service endpoint to VNet1
 - Reset GW1
 - Create a route-based virtual network gateway
 - Add a connection to GW1
 - Delete GW1
 - Add a public IP address space to VNet1

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?

- Floating IP (direct server return) to Enabled
- Floating IP (direct server return) to Disabled
- a health probe
- Session persistence to Client IP and Protocol

Validate ✓

Solution:

Explanation:

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:

stickysessionrule

Overview

Activity log

Access control (IAM)

Tags

Diagnose and solve problems

Frontend IP configuration

Backend pools

Health probes

Load balancing rules

Session persistence: Client IP and protocol

Idle timeout (minutes): 4

Floating IP (direct server return): Disabled

Session persistence specifies that traffic from a client should be handled by the same virtual machine in the backend pool for the duration of a session. "None" specifies that successive requests from the same client may be handled by any virtual machine. "Client IP" specifies that successive requests from the same client IP address will be handled by the same virtual machine. "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.

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/>

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

-
- an Azure Application Gateway
 - an Azure Active Directory (Azure AD) Application Proxy
 - an Azure Virtual Network Gateway

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?

- the Publish-AzVMDscConfiguration cmdlet
- Azure Application Insights
- Azure Custom Script Extension
- the New-AzConfigurationAssignment cmdlet

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?

-
- three Azure Application Gateways and one On-premises data gateway
 - three virtual hubs and one virtual WAN
 - three virtual WANs and one virtual hub
 - three On-premises data gateways and one Azure Application Gateway

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	192.198.16.0/24	North Europe

To which virtual networks can you establish a peering connection from VNet1?

VNet2 and VNet3 only

VNet2 only

VNet3 and VNet4 only

VNet2, VNet3, and VNet4

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 NVA 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.

-
- Deploy a basic load balancer
 - Deploy a standard load balancer
 - Add two load balancing rules that have HA Ports and Floating IP enabled
 - Add two load balancing rules that have HA Ports enabled and Floating IP disabled
 - Add a frontend IP configuration, a backend pool, and a health probe
 - Add a frontend IP configuration, two backend pools, and a health probe
-

Validate



Solution:

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>

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?

-
- Download and re-install the VPN client configuration package on Client1.
 - Select Allow gateway transit on VNet1.
 - Select Allow gateway transit on VNet2.
 - Enable BGP on VPNGW1

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?

- the subnets on VNet1 only
- the subnets on VNet2 and VNet3 only
- the subnets on VNet2 only
- the subnets on VNet3 only
- the subnets on VNet1, VNet2, and VNet3

Validate ✓

Solution:

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>

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)	Name server 1
vimrg	—
Subscription (change)	Name server 2
Azure Pass	—

Subscription ID	Name server 3
a4fde29b-d56a-4f6c-8298-6c53cd0b720c	—

	Name server 4
	—

Tags (change)

Click here to add tags

Name	Type	TTL	VALUE
@	SOA	3600	Email: azuredns-hostmaster microsoft.com Host: internal.cloudapp.net Refresh:m3600 Retry: 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:

The A record for VM5 will be registered automatically in the adatum.com zone. _____

Yes

No

VM5 can resolve VM9.adatum.com. _____

Yes

No

VM6 can resolve VM9. adatum.com. _____

Yes

No

✓

Solution:

Explanation:

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>

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 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:

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

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.

From the Internet, you can connect to VM1 by using Remote Desktop. _____

Yes

No

From the Internet, you can connect to VM2 by using Remote Desktop. _____

Yes

No

From VM1, you can connect to VM2 by using Remote Desktop _____

Yes

No

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 two 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:

VM2 can connect to the TCP port 1433 services on VM1. _____

Yes

No

VM1 can connect to the TCP port 1433 services on VM2. _____

Yes

No

VM2 can connect to the TCP port 1433 services on VM3. _____

Yes

No

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
Subnet 3	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:

Address prefix	Next hop type	Next hop address
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

VM3 can establish a network connection to VM1. _____

Yes

No

If VM3 is turned off, VM2 can establish a network connection to VM1. _____

Yes

No

VM1 can establish a network connection to VM2. _____

Yes

No

Validate ✓

Solution:

Explanation:

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>

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:

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

Validate

**Solution:**

Explanation:

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>

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:

Minimum number of network interfaces: _____

5

10

15

20

Minimum number of network security groups: _____

1

2

5

10

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.

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

Validate



Solution:

Explanation:

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/en-us/azure/dns/private-dns-scenarios>

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:

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

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

□ 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...

Virtual network: VNET2

Configuration

Enable auto registration

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:

When VM1 starts, a record for VM1 is added to the contoso.com DNS zone. _____

Yes

No

When VM2 starts, a record for VM2 is added to the contoso.com DNS zone. _____

Yes

No

When VM3 starts, a record for VM3 is added to the adatum.com DNS zone. _____

Yes

No

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

1. Remove VNet1.
2. Add the 10.33.0.0/16 address space to VNet1.
3. Create a new virtual network named VNet1.
4. On the peering connection in VNet2, allow gateway transit.
5. Recreate peering between VNet1 and VNet2.
6. On the peering connection in VNet1, allow gateway transit.
7. Remove peering between VNet1 and VNet2.

7,2,5

1,6,5

2,3,4

4,5,7

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

You can move storage1 to RG2. _____

Yes

No

You can move NIC1 to RG2. _____

Yes

No

If you move IP2 to RG1, the location of IP2 will change. _____

Yes

No

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?

- Deploy an internal load balancer
- Peer VNET1 to another virtual network
- Connect webapp1 to VNET1
- Deploy an Azure Application Gateway

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?

Yes

No

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?

Yes

No

Validate



Solution:

Explanation:

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>

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?

Yes

No

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

Network security group VM1-nsg (attached to network interface: vm1173) **Add inbound port rule**
Impacts 0 subnets, 1 network interfaces

PRIORITY	NAME	PORT	PROTOCOL	SOURCE	DESTINA...	ACTION
300	⚠️ RDP	3389	TCP	Any	Any	Allow ...
65000	AllowVnetInBound	Any	Any	VirtualN...	VirtualN...	Allow ...
65001	AllowAzureLoadB...	Any	Any	AzureLo...	Any	Allow ...
65500	DenyAllInBound	Any	Any	Any	Any	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?

- Change the priority of the RDP rule
- Attach a network interface
- Delete the DenyAllInBound rule
- Start VM1

Validate ✓

Solution:

Explanation:

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:

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.

Save Discard

DNS servers ⓘ

Default (Azure-provided)
 Custom

10.1.0.4 ...
Add DNS server ...

You need to ensure that all the virtual machines can resolve DNS names by using the DNS service on VM1.

What should you do?

- Configure a conditional forwarder on VM1
- Add service endpoints on VNET1
- Add service endpoints on VNET2 and VNET3
- Configure peering between VNET1, VNET2, and VNET3

Validate ✓

Solution:

Explanation:

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>

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 * RG1

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

Destination port * 8080

Advanced settings

Check

Status

⚠ Unreachable

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	-
VM2	172.16.2.4	●	-	-

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

NSG1 limits VM1 traffic _____

Yes

No

NSG1 applies to VM2 _____

Yes

No

VM1 and VM2 connect to the same virtual network _____

Yes

No

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?

- Modify the address space of the local network gateway
- Create a deny rule in a network security group (NSG) that is linked to Subnet1
- Remove the public IP addresses from the virtual machines
- Modify the address space of Subnet1

Validate ✓

Solution:

Explanation:

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>

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?

Associate NIC1 to ASG1

Modify the properties of ASG1

Modify the properties of NSG1

Validate ✓

Solution:

Explanation:

Application Security Group can be associated with NICs.

References:

<https://docs.microsoft.com/en-us/azure/virtual-network/security-overview#application-security-groups>

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.

-
- Create a connection
 - Create a local site VPN gateway
 - Create a VPN gateway that uses the VpnGw1 SKU
 - Create a gateway subnet
 - Create a VPN gateway that uses the Basic SKU

HOTSPOT

You have peering configured as shown in the following exhibit.

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

Hosts on vNET6 can communicate with hosts on [answer choice] _____

- VNET6 only
- VNET 6 and VNET 1 only
- VNET 6, VNET1, and vNET 2 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 peering 1
- modify the address space