QUESTION 59
Hotspot Question
You are integrating SAP HANA and Azure Active Directory (Azure AD).
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

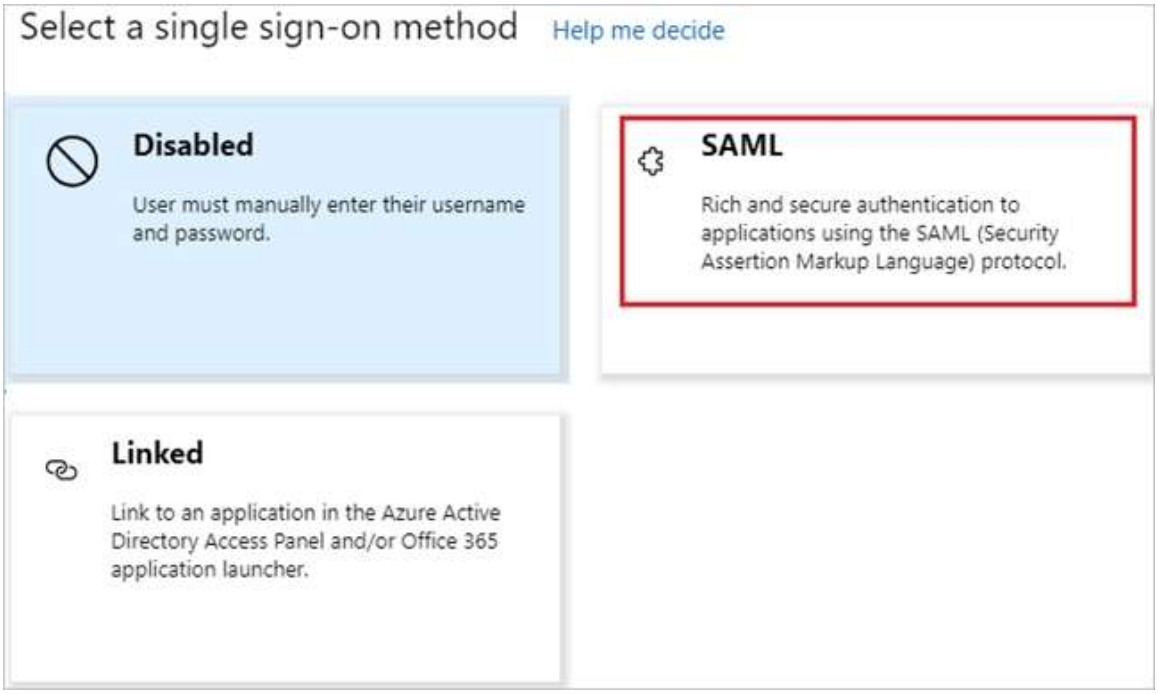
Statements	Yes	No
SAP HANA supports SAML authentication for single-sign on (SSO).	○	○
SAP HANA supports OAuth2 authentication for single-sign on (SSO).	○	○
You can use Azure role-based access control (RBAC) to provide users with the ability to sign in to SAP HANA.	○	○

Answer:

Answer Area

Statements	Yes	No
SAP HANA supports SAML authentication for single-sign on (SSO).	◉	○
SAP HANA supports OAuth2 authentication for single-sign on (SSO).	○	◉
You can use Azure role-based access control (RBAC) to provide users with the ability to sign in to SAP HANA.	○	◉

Explanation:
Box 1: Yes
To configure Azure AD single sign-on with SAP HANA, perform the following steps:
1. In the Azure portal, on the SAP HANA application integration page, select Single sign-on.
2. On the Select a Single sign-on method dialog, select SAML/WS-Fed mode to enable single sign-on.



Box 2: No
Box 3: No
Key security considerations for deploying SAP on Azure
References:
https://docs.microsoft.com/en-us/azure/active-directory/saas-apps/saphana-tutorial

QUESTION 60
Hotspot Question
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 Azure Enhanced Monitoring Extension for SAP stores performance data in an Azure Storage account.	○	○
You can enable the Azure Enhanced Monitoring Extension for SAP on a SUSE Linux Enterprise Server 12 (SLES 12) server by running the Set-AzVMAEMExtension cmdlet.	○	○
You can enable the Azure Enhanced Monitoring Extension for SAP on a server that runs Windows Server 2016 by running the Set-AzVMAEMExtension cmdlet.	○	○

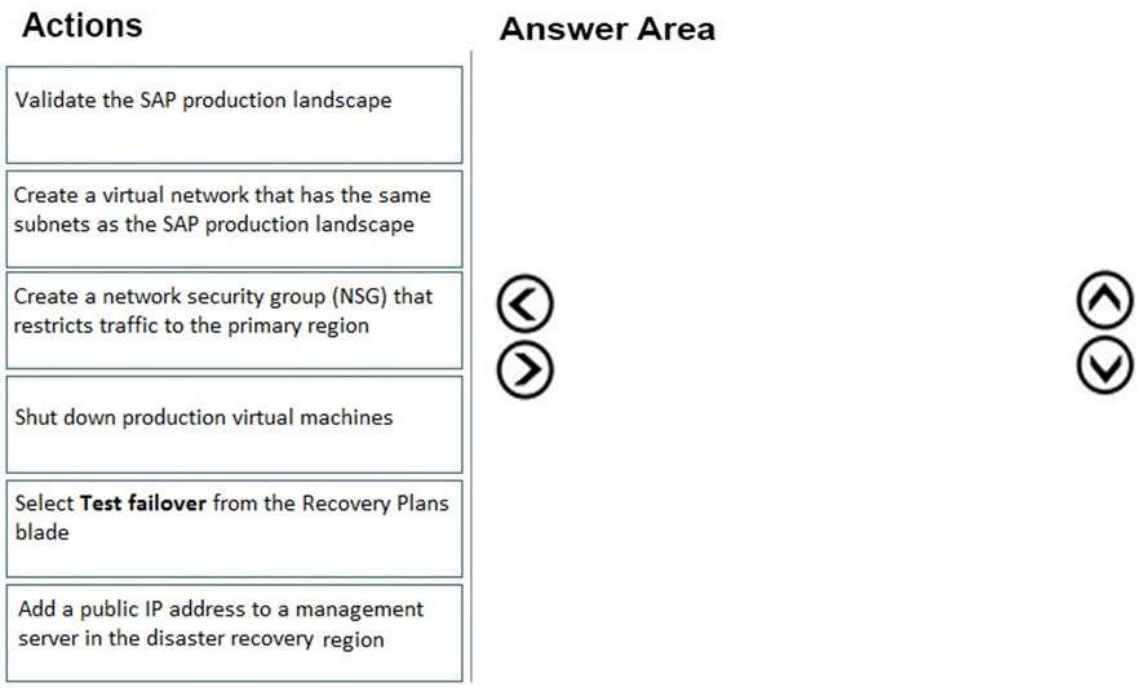
Answer:

Answer Area

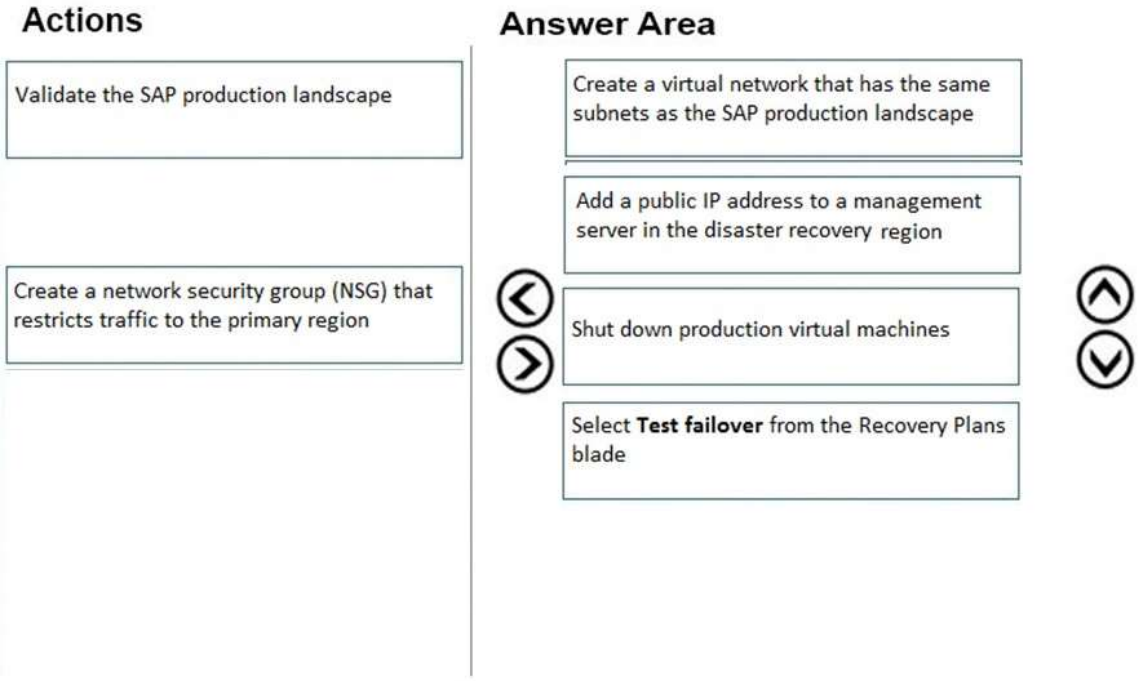
Statements	Yes	No
The Azure Enhanced Monitoring Extension for SAP stores performance data in an Azure Storage account.	◯	◯
You can enable the Azure Enhanced Monitoring Extension for SAP on a SUSE Linux Enterprise Server 12 (SLES 12) server by running the Set-AzVMAEMExtension cmdlet.	◯	◯
You can enable the Azure Enhanced Monitoring Extension for SAP on a server that runs Windows Server 2016 by running the Set-AzVMAEMExtension cmdlet.	◯	◯

Explanation:
Box 1: Yes
The SAP Azure Enhanced Monitoring Extension builds on top of the Azure Diagnostic extension, which stores its data in an Azure Storage account that you specify.
Box 2: Yes
The Set-AzVMAEMExtension cmdlet updates the configuration of a virtual machine to enable or update the support for monitoring for SAP systems that are installed on the virtual machine. The cmdlet installs the Azure Enhanced Monitoring (AEM) extension that collects the performance data and makes it discoverable for the SAP system.
The -OSType specifies the OS. Either Windows or Linux.
Box 3: Yes
References:
https://docs.microsoft.com/en-us/azure/azure-monitor/platform/diagnostics-extension-overview
https://docs.microsoft.com/en-us/powershell/module/az.compute/set-azvmaemextension

QUESTION 61
Drag and Drop Question
You have an SAP environment on Azure.
You use Azure Site Recovery to protect an SAP production landscape.
You need to validate whether you can recover the landscape in the event of a failure. The solution must minimize the impact on the landscape.
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.



Answer:



Explanation:

Step 1: Create a virtual network...

We recommended that for test failover, you choose a network that's isolated from the production recovery site network specific in the Compute and Network settings for each VM. By default, when you create an Azure virtual network, it is isolated from other networks. The test network should mimic your production network:

The test network should have same number of subnets as your production network. Subnets should have the same names.

The test network should use the same IP address range.

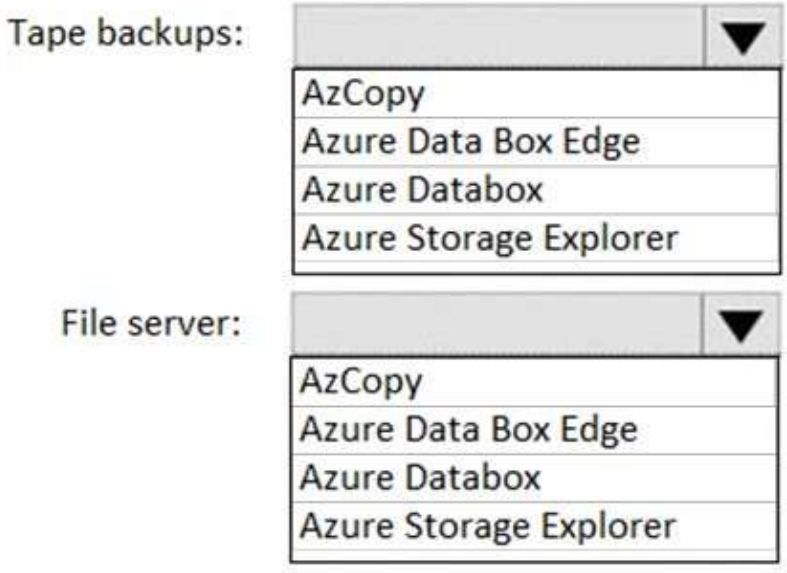
Step 2: Add a public IP address...

Because Site Recovery does not replicate the cloud witness, we recommend that you deploy the cloud witness in the disaster recovery region.

Step 3: Shut down production virtual machines
Make sure that the primary VM is shut down when you run the test failover. Otherwise there will be two VMs with the same identity, running in the same network at the same time. This can lead to unexpected consequences.
Step 4: Select Test failover from the Recovery Plans blade
References:
https://docs.microsoft.com/en-us/azure/site-recovery/site-recovery-test-failover-to-azure

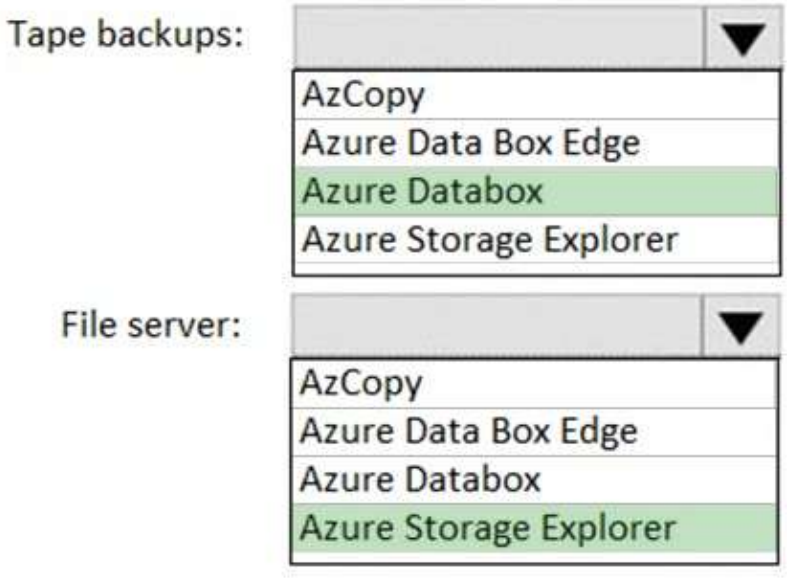
QUESTION 62
Hotspot Question
You have an on-premises SAP environment.
Backups are performed by using tape backups. There are 50 TB of backups.
A Windows file server has BMP images of checks used by SAP Finance. There are 9 TB of images.
You need to recommend a method to migrate the images and the tape backups to Azure. The solution must maintain continuous replication of the images.
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.

Answer Area



Answer:

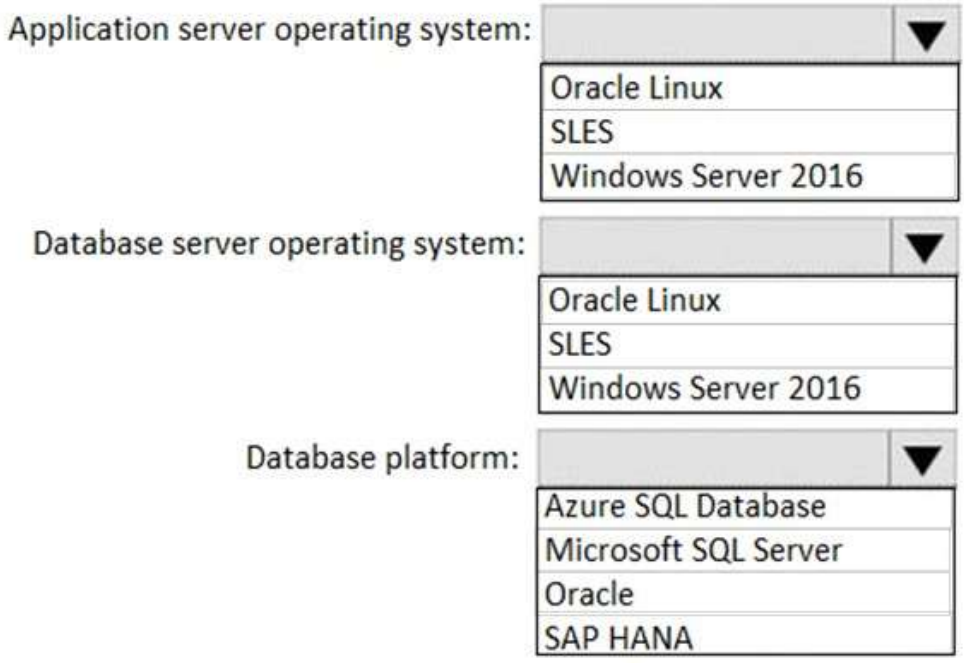
Answer Area



Explanation:
Tape backups: Azure DataBox
The Microsoft Azure Data Box cloud solution lets you send terabytes of data into Azure in a quick, inexpensive, and reliable way. The secure data transfer is accelerated by shipping you a proprietary Data Box storage device. Each storage device has a maximum usable storage capacity of 80 TB and is transported to your datacenter through a regional carrier. The device has a rugged casing to protect and secure data during the transit.
File server: Azure Storage Explorer
Azure Storage Explorer is an application which helps you to easily access the Azure storage account through any device on any platform, be it Windows, MacOS, or Linux. You can easily connect to your subscription and manipulate your tables, blobs, queues, and files.
Incorrect Answers:
Not Azure Data Box Edge: Azure Data Box Edge is rebranded as Azure Stack Edge. Azure Stack Edge is a Hardware-as-a-service solution. Microsoft ships you a cloud-managed device with a built-in Field Programmable Gate Array (FPGA) that enables accelerated AI-inferencing and has all the capabilities of a network storage gateway.
References:
https://docs.microsoft.com/en-us/azure/databox/data-box-overview
https://github.com/MicrosoftDocs/azure-docs/blob/master/articles/vs-azure-tools-storage-manage-with-storage-explorer.md

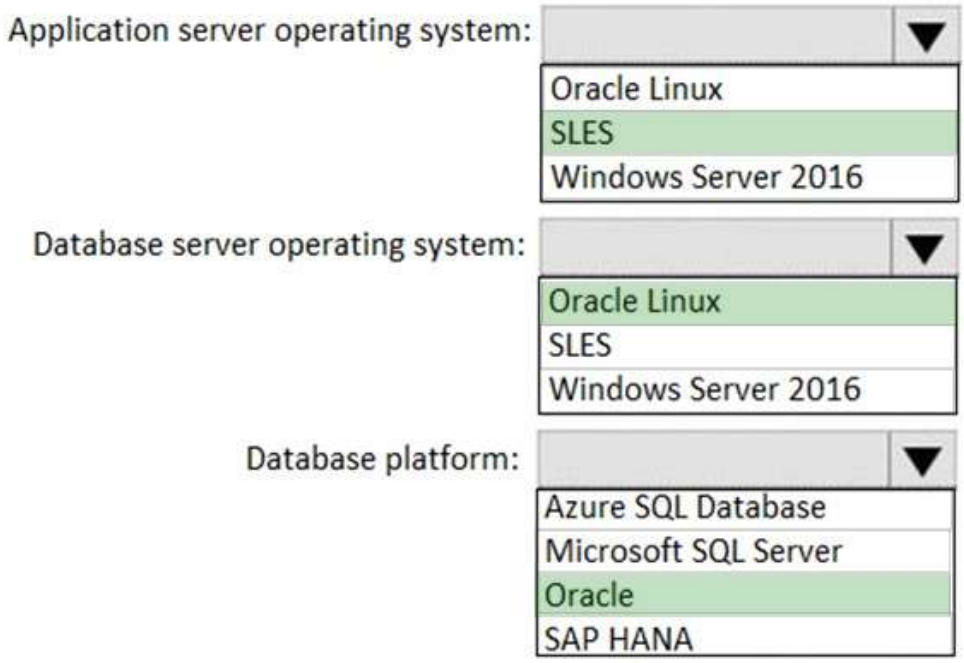
QUESTION 63
Hotspot Question
You have an on-premises SAP environment. Application servers run on SUSE Linux Enterprise Server (SLES) servers. Databases run on SLES servers that have Oracle installed.
You need to recommend a solution to migrate the environment to Azure. The solution must use currently deployed technologies whenever possible and support high availability.
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.

Answer Area



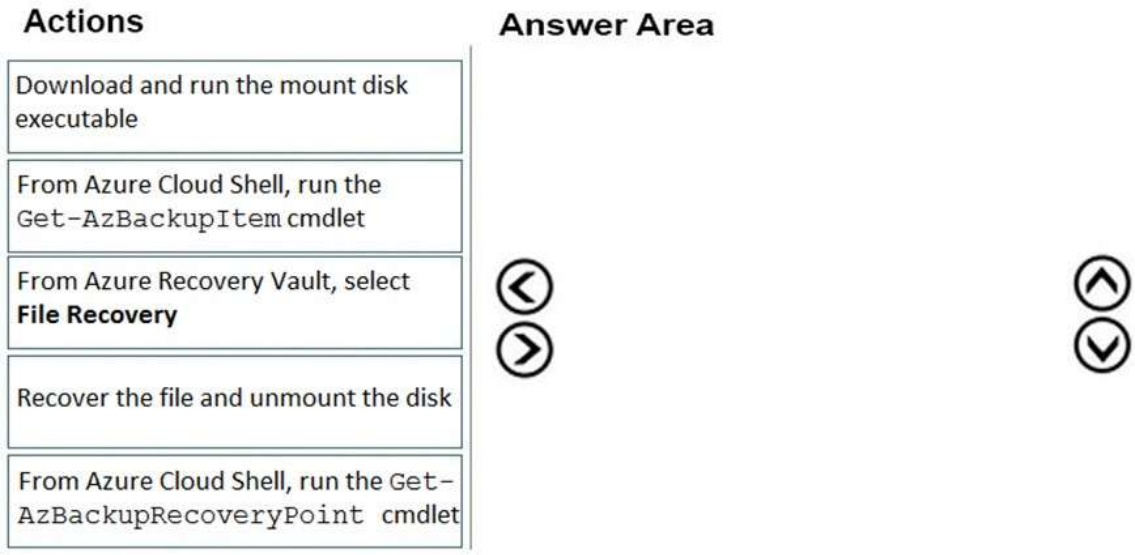
Answer:

Answer Area

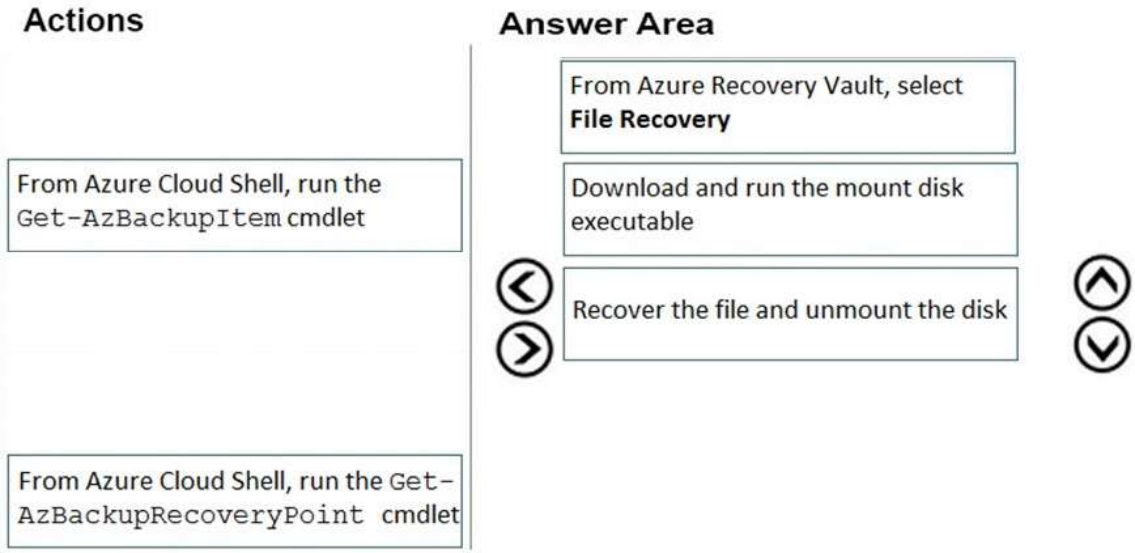


QUESTION 64
Drag and Drop Question
You have an SAP environment on Azure.

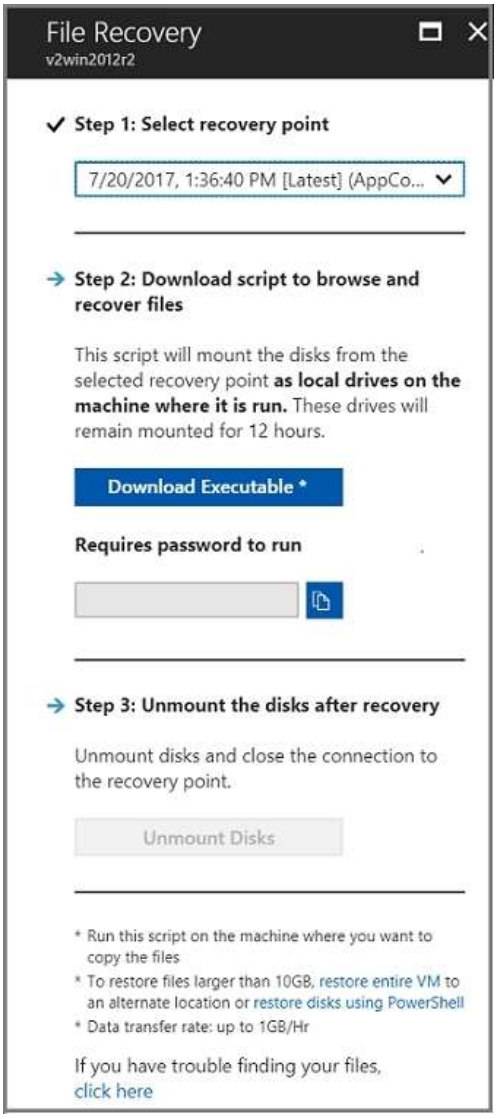
You use Azure Recovery Services to back up an SAP application server.
You need to test the restoration process of a file on the server.
Which three actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.



Answer:



Explanation:
Step 1: From Azure Recover Vault, select File Recovery
To restore files or folders from the recovery point, go to the virtual machine and choose the desired recovery point.
Step 2: Download and run the mount disk executable
Step 3: recover the file and unmount the disk



QUESTION 65
Hotspot Question
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
Enabling Accelerated Networking on an SAP application server will decrease CPU usage.	○	○
Enabling Accelerated Networking on an SAP application server will increase jitter.	○	○
You can enable Accelerated Networking on any Azure virtual machine.	○	○

Answer:

Answer Area

Statements	Yes	No
Enabling Accelerated Networking on an SAP application server will decrease CPU usage.	○	○
Enabling Accelerated Networking on an SAP application server will increase jitter.	○	○
You can enable Accelerated Networking on any Azure virtual machine.	○	○

Explanation:
Box 1: Yes
By moving much of Azure's software-defined networking stack off the CPUs and into FPGA-based SmartNICs, compute cycles are reclaimed by end user applications, putting less load on the VM, decreasing jitter and inconsistency in latency.
Box 2: Yes
Box 3: No
Accelerated Networking (AN) is generally available (GA) and widely available for Windows and the latest distributions of Linux
References:
https://azure.microsoft.com/en-us/blog/maximize-your-vm-s-performance-with-accelerated-networking-now-generally-available-for-both-windows-and-linux/

QUESTION 66
Case Study 2 - Contoso, Ltd
Overview
Contoso, Ltd. is a manufacturing company that has 15,000 employees.
The company uses SAP for sales and manufacturing.
Contoso has sales offices in New York and London and manufacturing facilities in Boston and Seattle.
Existing Environment
Active Directory
The network contains an on-premises Active Directory domain named ad.contoso.com. User email addresses use a domain name of contoso.com.
SAP Environment
The current SAP environment contains the following components:
- SAP Solution Manager
- SAP ERP Central Component (SAP ECC)
- SAP Supply Chain Management (SAP SCM)
- SAP application servers that run Windows Server 2008 R2
- SAP HANA database servers that run SUSE Linux Enterprise Server 12 (SLES 12)

Problem Statements
Contoso identifies the following issues in its current environment:
- The SAP HANA environment lacks adequate resources.
- The Windows servers are nearing the end of support.
- The datacenters are at maximum capacity.

Requirements
Planned Changes
Contoso identifies the following planned changes:
- Deploy Azure Virtual WAN.
- Migrate the application servers to Windows Server 2016.
- Deploy ExpressRoute connections to all of the offices and manufacturing facilities.
- Deploy SAP landscapes to Azure for development, quality assurance, and production.

All resources for the production landscape will be in a resource group named SAPProduction.

Business goals

Contoso identifies the following business goals:

- Minimize costs whenever possible.
- Migrate SAP to Azure without causing downtime.
- Ensure that all SAP deployments to Azure are supported by SAP.
- Ensure that all the production databases can withstand the failure of an Azure region.
- Ensure that all the production application servers can restore daily backups from the last 21 days.

Technical Requirements

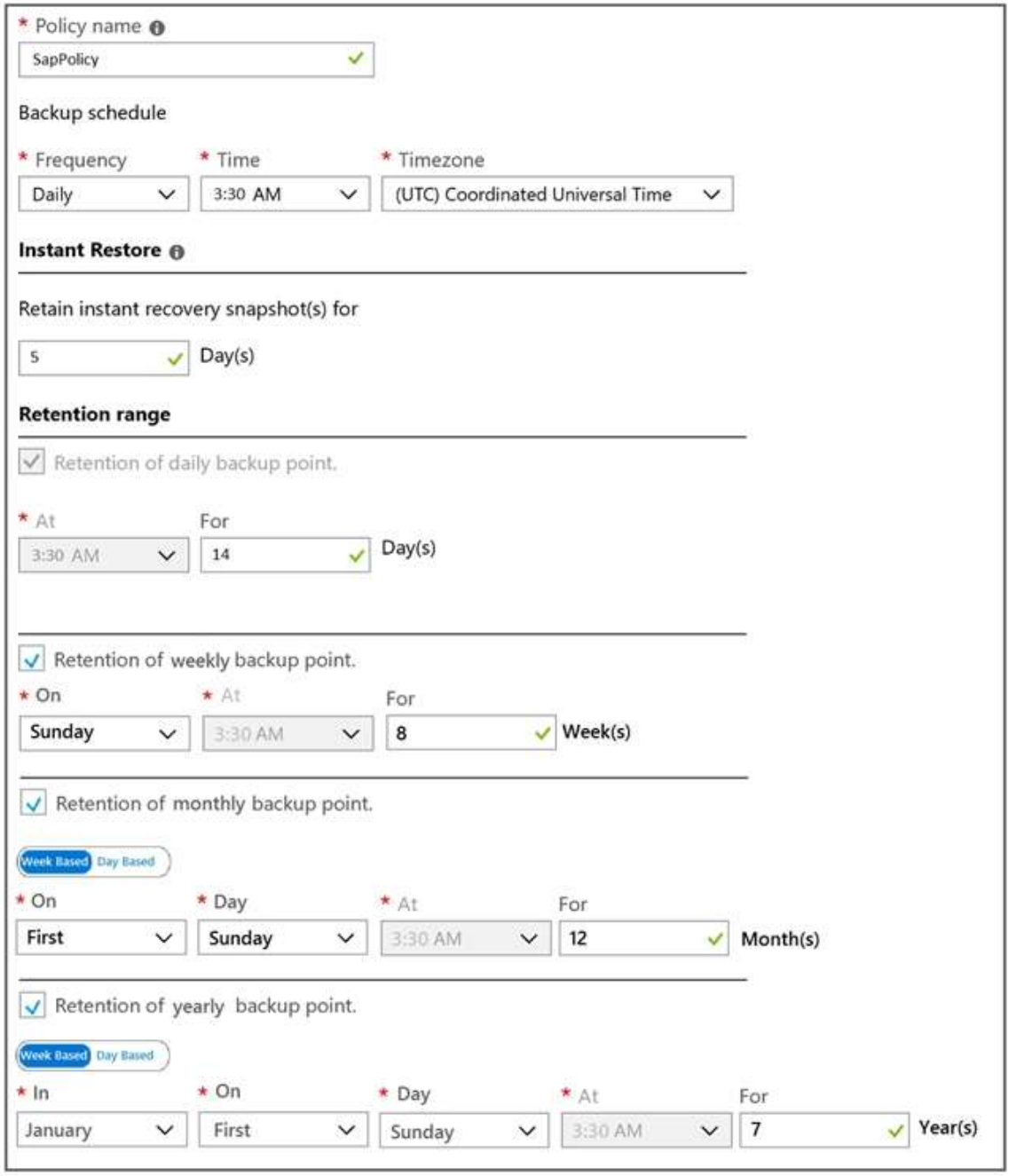
Contoso identifies the following technical requirements:

- Inspect all web queries.
- Deploy an SAP HANA cluster to two datacenters.
- Minimize the bandwidth used for database synchronization.
- Use Active Directory accounts to administer Azure resources.
- Ensure that each production application server has four 1-TB data disks.
- Ensure that an application server can be restored from a backup created during the last five days within 15 minutes.
- Implement an approval process to ensure that an SAP administrator is notified before another administrator attempts to make changes to the Azure virtual machines that host SAP.

It is estimated that during the migration, the bandwidth required between Azure and the New York office will be 1 Gbps. After the migration, a traffic burst of up to 3 Gbps will occur.

Proposed Backup Policy

An Azure administrator proposes the backup policy shown in the following exhibit.



Azure Resource Manager Template

An Azure administrator provides you with the Azure Resource Manager template that will be used to provision the production application servers.

```
{
  "apiVersion": "2017-03-30",
  "type": "Microsoft.Compute/virtualMachines",
  "name": "[parameters('vmname')]",

  "location": "EastUS",
  "dependsOn": [
    "[resourceId('Microsoft.Network/networkInterfaces/', parameters('vmname'))]"
  ],
  "properties":{
    "hardwareProfile": {
      "vmSize": "[parameters('vmSize')]"
  },
  "osProfile": {
    "computerName": "[parameters('vmname')]",
    "adminUsername": "[parameters('adminUsername')]",
    "adminPassword": "[parameters('adminPassword')]"
  },
  "storageProfile": {
    "ImageReference": {
      "publisher": "MicrosoftWindowsServer",
      "Offer" : "WindowsServer",
      "sku" : "2016-datacenter",
      "version" : "latest"
    },
    "osDisk": {
      "name": "[concat(parameters('vmname'), '-OS')]",
      "caching": "ReadWrite",
      "createOption": "FromImage",
      "diskSizeGB": 128,
      "managedDisk":{
            "storageAccountType": "[parameters('storageAccountType')]"
      }
    },
    "copy": [
      {
        "name": "DataDisks",
        'count": "[parameters('diskCount')]",
        "input" : {
         "Caching" : "None",
         "diskSizeGB" : 1024,
         "lun": "[copyIndex('datadisks')]",
```

```
            "name": "[concat(parameters('vmname'), '-DD',copyIndex('datadisks'))]",
            "createOption": "Empty"
          }
        }
      ]
    },
    "networkProfile": {
      "networkInterfaces": [
        {
          "id": "[resourceId('Microsoft.Network/networkInterfaces', parameters('vmName'))]"
        }
      ]
    }
  },
  "resources": [
      {
        "apiVersion": "2017-03-30"
        "type": "Microsoft.Compute/virtualMachines/extensions",
        "name": "[concat(parameters('VMName'), '/joindomain')]",
        "location": "eastus",
        "properties": {
          "publisher": "Microsoft.Compute",
          "type": "JsonADDomainExtension",
          "typeHandlerVersion": "1.3",
          "autoUpgradeMinorVersion": true,
          "settings": {
              "Name": "[parameters('domainName')]",
              "User": "[parameters('domainusername')]",
              "Restart": "true",
              "Options": "3"
          },
          "protectedsettings": {
              "Password": "[parameters('domainPassword')]"
          }
        }
      }
    ]
  }
```

Hotspot Question
You are evaluating the proposed backup policy.
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 backup policy meets the technical requirements.	○	○
The backup policy meets the business requirements.	○	○
If the backup policy is implemented, a deleted file can be restored to the running virtual machine one year after the file was deleted.	○	○

Answer:

Answer Area

Statements	Yes	No
The backup policy meets the technical requirements.	○	○
The backup policy meets the business requirements.	○	○
If the backup policy is implemented, a deleted file can be restored to the running virtual machine one year after the file was deleted.	○	○

Explanation:
Box 1: Yes
Scenario: Technical requirements: Ensure that an application server can be restored from a backup created during the last five days within 15 minutes.
Instant Restore has 'The instance recovery snapshot(s) for 5 Day(s)'.
Box 2: No
Scenario: Ensure that all the production application servers can restore daily backups from the last 21 days.
The Retention of daily backup point is set to for 14 days only.
Box 3: Yes
Reference:
https://docs.microsoft.com/en-us/azure/backup/backup-instant-restore-capability

QUESTION 67
Case Study 2 - Contoso, Ltd
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Contoso identifies the following business goals:

- Minimize costs whenever possible.
- Migrate SAP to Azure without causing downtime.
- Ensure that all SAP deployments to Azure are supported by SAP.
- Ensure that all the production databases can withstand the failure of an Azure region.
- Ensure that all the production application servers can restore daily backups from the last 21 days.

Technical Requirements

Contoso identifies the following technical requirements:

- Inspect all web queries.
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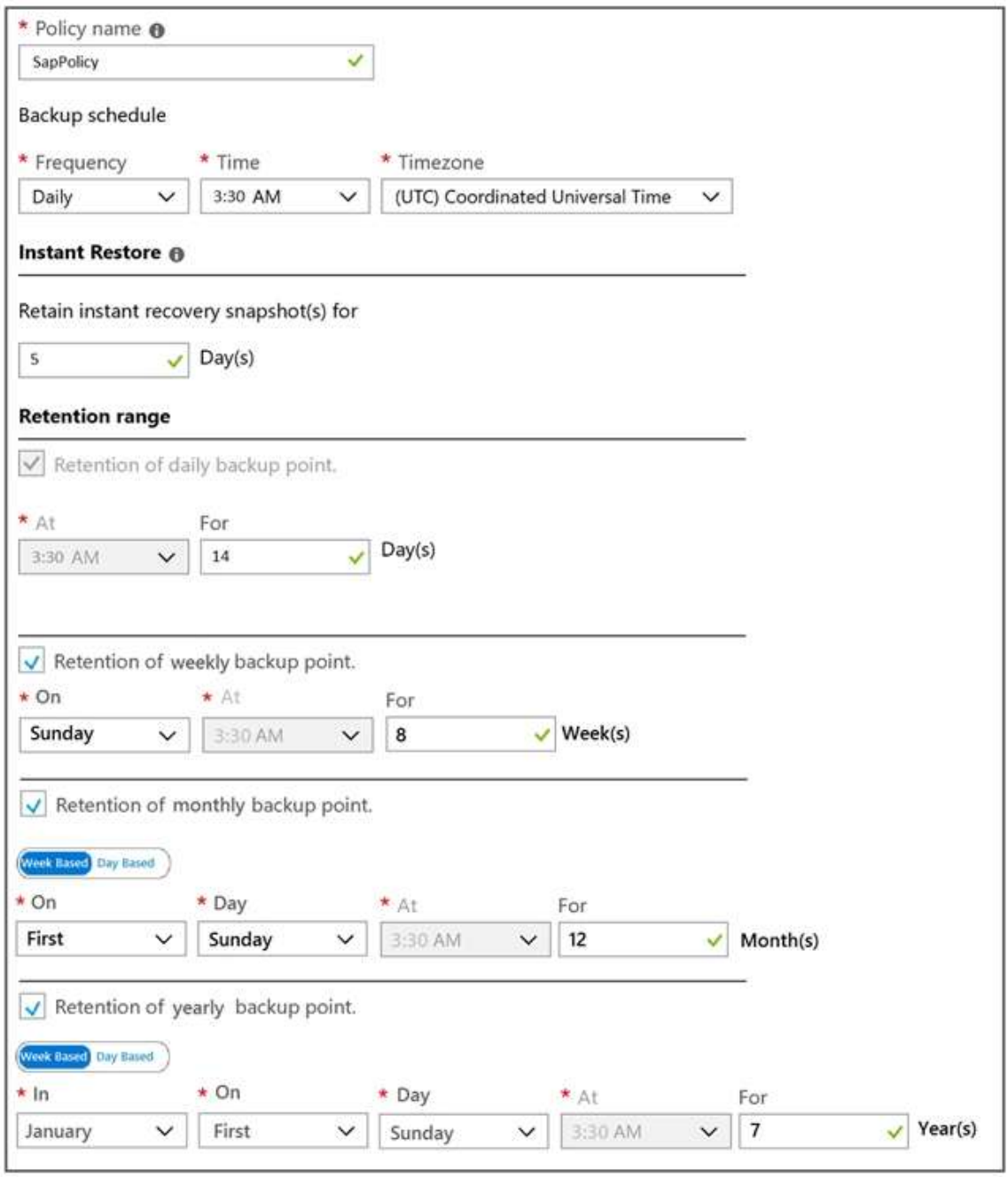
- Minimize the bandwidth used for database synchronization.
- Use Active Directory accounts to administer Azure resources.
- Ensure that each production application server has four 1-TB data disks.
- Ensure that an application server can be restored from a backup created during the last five days within 15 minutes.
- Implement an approval process to ensure that an SAP administrator is notified before another administrator attempts to make changes to the Azure virtual machines that host SAP.

It is estimated that during the migration, the bandwidth required between Azure and the New York office will be 1 Gbps. After the migration, a traffic burst of up to 3 Gbps will occur.

Proposed Backup Policy

An Azure administrator proposes the backup policy shown in the following exhibit.



Azure Resource Manager Template

An Azure administrator provides you with the Azure Resource Manager template that will be used to provision the production application servers.

```
{
  "apiVersion": "2017-03-30",
  "type": "Microsoft.Compute/virtualMachines",
  "name": "[parameters('vmname')]",

  "location": "EastUS",
  "dependsOn": [
    "[resourceId('Microsoft.Network/networkInterfaces/', parameters('vmname'))]"
  ],
  "properties":{
    "hardwareProfile": {
      "vmSize": "[parameters('vmSize')]"
  },
  "osProfile": {
    "computerName": "[parameters('vmname')]",
    "adminUsername": "[parameters('adminUsername')]",
    "adminPassword": "[parameters('adminPassword')]"
  },
  "storageProfile": {
    "ImageReference": {
      "publisher": "MicrosoftWindowsServer",
      "Offer" : "WindowsServer",
      "sku" : "2016-datacenter",
      "version" : "latest"
    },
    "osDisk": {
      "name": "[concat(parameters('vmname'), '-OS')]",
      "caching": "ReadWrite",
      "createOption": "FromImage",
      "diskSizeGB": 128,
      "managedDisk":{
            "storageAccountType": "[parameters('storageAccountType')]"
      }
    },
    "copy": [
      {
        "name": "DataDisks",
        'count": "[parameters('diskCount')]",
        "input" : {
         "Caching" : "None",
         "diskSizeGB" : 1024,
         "lun": "[copyIndex('datadisks')]",
```

```
            "name": "[concat(parameters('vmname'), '-DD',copyIndex('datadisks'))]",
            "createOption": "Empty"
          }
        }
      ]
    },
    "networkProfile": {
      "networkInterfaces": [
        {
          "id": "[resourceId('Microsoft.Network/networkInterfaces', parameters('vmName'))]"
        }
      ]
    }
  },
  "resources": [
      {
        "apiVersion": "2017-03-30"
        "type": "Microsoft.Compute/virtualMachines/extensions",
        "name": "[concat(parameters('VMName'), '/joindomain')]",
        "location": "eastus",
        "properties": {
          "publisher": "Microsoft.Compute",
          "type": "JsonADDomainExtension",
          "typeHandlerVersion": "1.3",
          "autoUpgradeMinorVersion": true,
          "settings": {
              "Name": "[parameters('domainName')]",
              "User": "[parameters('domainusername')]",
              "Restart": "true",
              "Options": "3"
          },
          "protectedsettings": {
              "Password": "[parameters('domainPassword')]"
          }
        }
      }
    ]
  }
```

You are planning replication of the SAP HANA database for the disaster recovery environment in Azure.
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 must use synchronous replication.	○	○
You must use delta data shipping for operation mode.	○	○
You must configure an Azure Directory (Azure AD) application to manage the failover.	○	○

Answer:

Answer Area

Statements	Yes	No
You must use synchronous replication.	○	○
You must use delta data shipping for operation mode.	○	○
You must configure an Azure Directory (Azure AD) application to manage the failover.	○	○

Explanation:
Box 1: No
SAP HANA Replication consists of one primary node and at least one secondary node. Changes to the data on the primary node are replicated to the secondary node synchronously or asynchronously.
Box 2: No
Since SPS11 SAP HANA system replication can be run in two different operation modes:
delta_datashipping
logreplay
Box 3: Yes
Reference:
https://docs.microsoft.com/en-us/azure/virtual-machines/workloads/sap/sap-hana-high-availability-rhel
https://blogs.sap.com/2018/01/08/your-sap-on-azure-part-4-high-availability-for-sap-hana-using-system-replication/

QUESTION 68
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 complex SAP environment that has both ABAP-and Java-based systems. The current on-premises landscapes are based on SAP NetWeaver 7.0 (Unicode and Non-Unicode) running on Windows Server and Microsoft SQL Server.
You need to migrate the SAP environment to a HANA-certified Azure environment.
Solution: You deploy a new environment to Azure that uses SAP NetWeaver 7.4. You export the databases from the on-premises environment, and then you import the databases into the Azure environment.
Does this meet the goal?

A. Yes
B. No

Answer: B
Explanation:
Instead use Azure Site Recovery to migrate.
Reference:
https://docs.microsoft.com/en-us/azure/site-recovery/vmware-azure-architecture

QUESTION 69
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 complex SAP environment that has both ABAP-and Java-based systems. The current on-premises

landscapes are based on SAP NetWeaver 7.0 (Unicode and Non-Unicode) running on Windows Server and Microsoft SQL Server.
You need to migrate the SAP environment to a HANA-certified Azure environment.
Solution: You upgrade to SAP NetWeaver 7.4, and then you migrate SAP to Azure by using Azure Site Recovery.
Does this meet the goal?

A. Yes
B. No

Answer: A
Explanation:
We need upgrade to SAP NetWeaver 7.4 before the migration. Then Azure Site Recovery is used for the migration to Azure.
Reference:
https://docs.microsoft.com/en-us/azure/site-recovery/vmware-azure-architecture

QUESTION 70
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 complex SAP environment that has both ABAP-and Java-based systems. The current on-premises landscapes are based on SAP NetWeaver 7.0 (Unicode and Non-Unicode) running on Windows Server and Microsoft SQL Server.
You need to migrate the SAP environment to a HANA-certified Azure environment.
Solution: You migrate SAP to Azure by using Azure Site Recovery, and then you upgrade to SAP NetWeaver 7.4.
Does this meet the goal?

A. Yes
B. No

Answer: B
Explanation:
We need upgrade to SAP NetWeaver 7.4 before the migration.
Reference:
https://docs.microsoft.com/en-us/azure/site-recovery/vmware-azure-architecture