# Practice Test 1

### **Question 1**

Domain :Design Azure data storage solutions

A company is planning to deploy two Cosmos DB databases named compdb1 and compdb2. Below are the requirements for the databases.

* Costs must be minimized for both databases.
* The database compdb1 must meet an SLA of 99.99% for both reads and writes.
* The database compdb2 must meet an SLA of 99.99% for writes and 99.999% for reads.

Which of the following would you implement for the database compdb1?

]A.

**A single read/write region**

]B.

**A single read region and multiple writes**

]C.

**A single write region and multiple reads**

]D.

**Multiple read regions and multiple write regions**

### **Question 2**

Domain :Design Azure data storage solutions

A company is planning to deploy two Cosmos DB databases named compdb1 and compdb2. Below are the requirements for the databases.

* Costs must be minimized for both databases.
* The database compdb1 must meet an SLA of 99.99% for both reads and writes.
* The database compdb2 must meet an SLA of 99.99% for writes and 99.999% for reads.

Which of the following would you implement for the database compdb2?

]A.

**A single read/write region**

]B.

**A single read region and multiple writes**

]C.

**A single write region and multiple reads**

]D.

**Multiple read regions and multiple write regions**

### **Question 3**

Domain :Design for data security and compliance

A company has set an Azure SQL data warehouse. They want to ensure that users use two-factor authentication when they access data from the data warehouse using SQL Server Management Studio. Which of the following would you implement for this requirement?

]A.

**Azure AD Privileged Identity Management**

]B.

**Azure AD Identity Protection**

]C.

**Azure Key Vault**

]D.

**Azure conditional access policies**

### **Question 4**

Domain :Design for data security and compliance

A company wants to make use of Azure Databricks and Azure Data Lake Storage Gen2. As a data engineer, you have to ensure that the data in the Data Lake Storage is accessed by using a service principal from Azure Databricks. Which of the following would you implement for this requirement?

]A.

**Use the shared access signature in Data Lake Storage.**

]B.

**Use access keys in Data Lake Storage.**

]C.

**Create an application registration in Azure AD.**

]D.

**Use a secret from Azure Key vault.**

### **Question 5**

Domain :Design for data security and compliance

You have an Azure Storage Account of the kind general purpose v2. You have to grant anonymous access permission to access the blobs in a specific container only. Which of the following should you use for this requirement?

]A.

**Access keys for the storage account**

]B.

**A shared access signature**

]C.

**Role based access control**

]D.

**Public access level for the blob service**

### **Question 6**

Domain :Design for data security and compliance

You are going to create an Azure SQL data warehouse that is going to container customer data. You need to design a solution with the following requirements.

* Provide the ability for data engineers to view all the rows for the customers.
* The data engineers should not be able to view the credit card information of the customers.

Which of the following would you implement for this requirement?

]A.

**Row-level security**

]B.

**Data masking**

]C.

**Column-level security**

]D.

**Always Encrypted**

### **Question 7**

Domain :Design data processing solutions

A company wants to implement a big data solution on the Azure platform. The solution must meet the following requirements.

* Must be optimized to carry out batch processing activities.
* Must support autoscaling.
* Must support scaling at the cluster level.

Which of the following would you implement for this requirement?

]A.

**Azure Data warehouse**

]B.

**Azure HDInsight with Spark**

]C.

**Azure Analysis services**

]D.

**Azure Databricks**

### **Question**

Domain :Design Azure data storage solutions

A company has an Azure SQL Data warehouse. The company wants to have a solution in place wherein the data would be available at the time of a data center failure. The recovery point objective for the data should be an hour. Which of the following would you implement for this solution? Choose 3 answers from the options given below.

A.

**Restore the data warehouse from a geo-redundant backup.**

B.

**Restore the data warehouse from a user-defined restore point.**

C.

**Ensure that any application connection strings are updated to the recovered data warehouse.**

D.

**Ensure to modify the Azure Firewall rules of the data warehouse.**

E.

**Ensure to create Azure Firewall rules to allow access to the restored data warehouse.**

### **Question 9**

Domain :Design for data security and compliance

A company has an Azure Data Lake Storage Gen 2 account that is used to store data used by data engineers. The data engineers would query the data by using notebooks from Azure data bricks. The folders in the Data Lake storage account would be secured by ensuring that users only have access to the folders they require.

Which of the following would you use as the authentication method for Azure Databricks?

]A.

**Azure Active Directory**

]B.

**Azure Key vault secrets**

]C.

**Personal Access token**

]D.

**Storage access keys**

### **Question 10**

Domain :Design for data security and compliance

A company has an Azure Data Lake Storage Gen 2 account used to store data used by data engineers. The data engineers would query the data by using notebooks from Azure data bricks. The folders in the Data Lake storage account would be secured by ensuring that users only have access to the folders they require.

Which of the following would you use as the authentication method for Data Lake storage?

]A.

**Azure Active Directory**

]B.

**Shared access keys**

]C.

**Shared access signatures**

]D.

**Storage access keys**

### **Question 11**

Domain :Design for data security and compliance

A company is planning to set up an Azure SQL database. The database will be used to store sensitive data. Below are the requirements for the data store.

* Only the application accessing the data can perform the encryption.
* The client application must have the access keys for encrypting and decrypting the data.
* The data must not appear in plaintext in the database.
* The strongest encryption method must be used on the database.
* The application should be able to search on select data values.

Which of the following would you use as the encryption method for Searchable data?

]A.

**Always Encrypted with randomized encryption**

]B.

**Always Encrypted with deterministic encryption**

]C.

**CREATE SYMMETRIC KEY statement**

]D.

**CREATE CERTIFICATE statement**

### **Question 12**

Domain :Design for data security and compliance

A company is planning to set up an Azure SQL database. The database will be used to store sensitive data. Below are the requirements for the data store.

* Only the application accessing the data can perform the encryption.
* The client application must have the access keys for encrypting and decrypting the data.
* The data must not appear in plaintext in the database.
* The strongest encryption method must be used on the database.
* The application should be able to search on select data values.

Which of the following would you use as the encryption method for Non-Searchable data?

]A.

**Always Encrypted with randomized encryption**

]B.

**Always Encrypted with deterministic encryption**

]C.

**CREATE SYMMETRIC KEY statement**

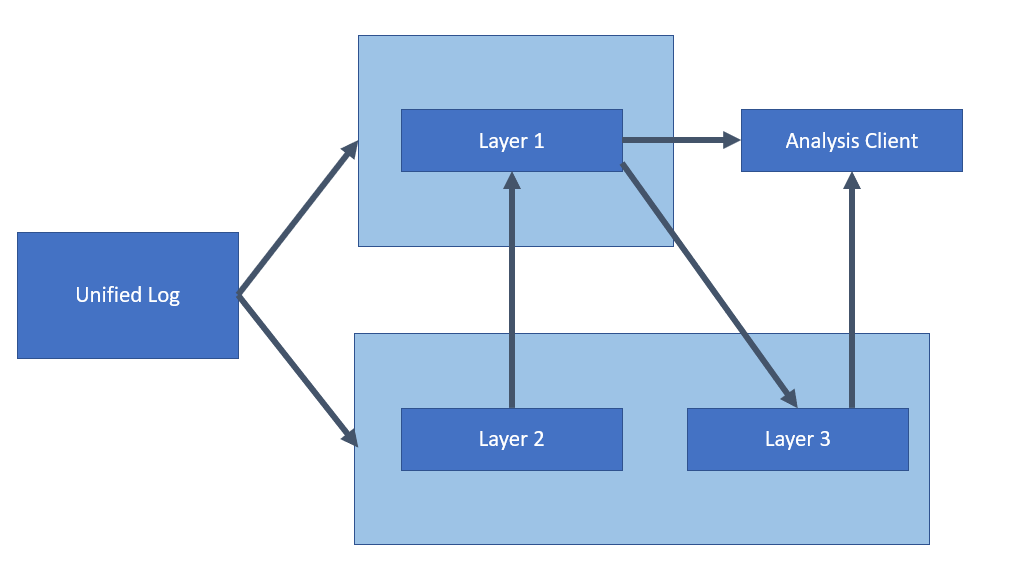
]D.

**CREATE CERTIFICATE statement**

### **Question 13**

Domain :Design data processing solutions

A company is planning to design a solution in Azure. The solution would be based on the Lambda architecture as shown below.



Which of the following service would you use for Layer 2?

]A.

**Azure Data Lake Storage Gen 2**

]B.

**Azure Event Hubs**

]C.

**Azure Log Analytics**

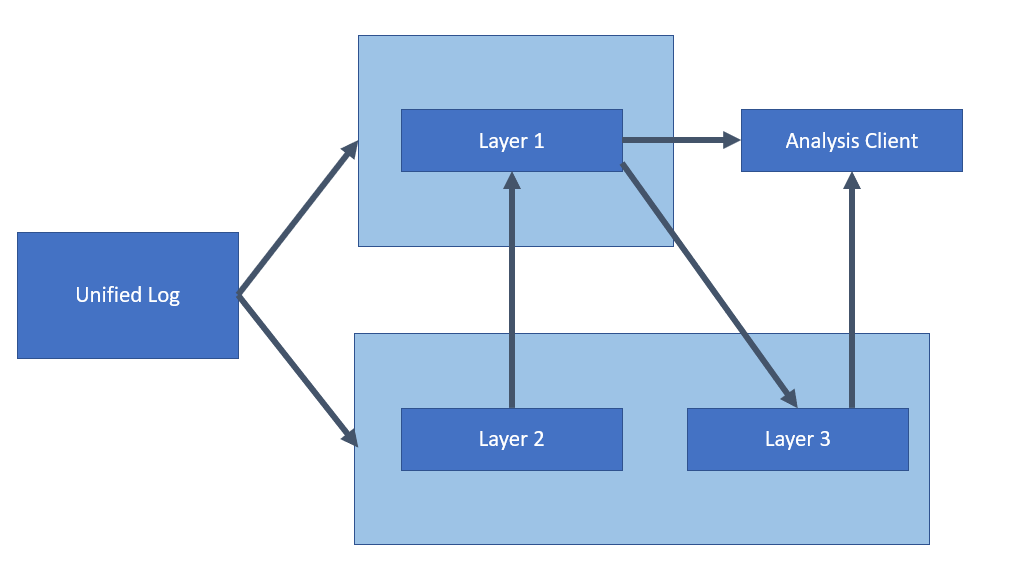
]D.

**Azure SQL Data Warehouse**

### **Question 14**

Domain :Design data processing solutions

A company is planning to design a solution in Azure. The solution would be based on the Lambda architecture as shown below.



Which of the following service would you use for Layer 3?

]A.

**Azure Data Lake Storage Gen 2**

]B.

**Azure Event Hubs**

]C.

**Azure Log Analytics**

]D.

**Azure SQL Data Warehouse**

### **Question 15**

Domain :Design for data security and compliance

Your company is planning on transferring data from an Azure Data Lake Storage account. The data will be transferred using Azure Data Factory. The data will then be loaded into a data warehouse in Azure Synapse using PolyBase. The data in the Azure Data Lake Storage account will be accessed via a virtual network service endpoint.

Which of the following should be used as the authentication method to access the data in the Azure Data Lake Storage account?

]A.

**Shared Access Key Authentication**

]B.

**Managed Identity Authentication**

]C.

**Account Key Authentication**

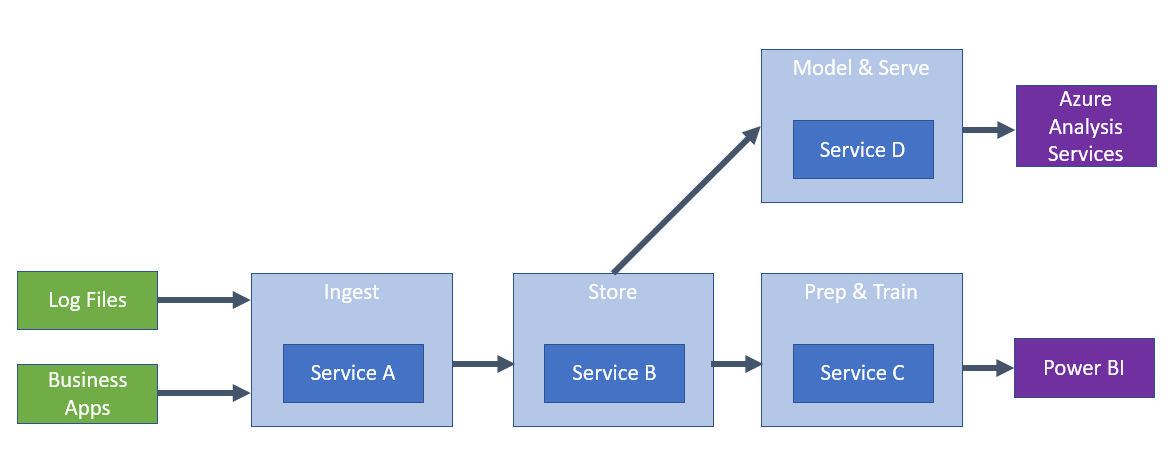
]D.

**Service Principal Authentication**

### **Question 16**

Domain :Design data processing solutions

A company is planning to build a solution that would contain the below layers.



You have to decide on which services will be used for each layer.

Which of the following would you choose as the service to use Service A?

]A.

**Azure Blob Storage**

]B.

**Azure Data Factory**

]C.

**Azure Databricks**

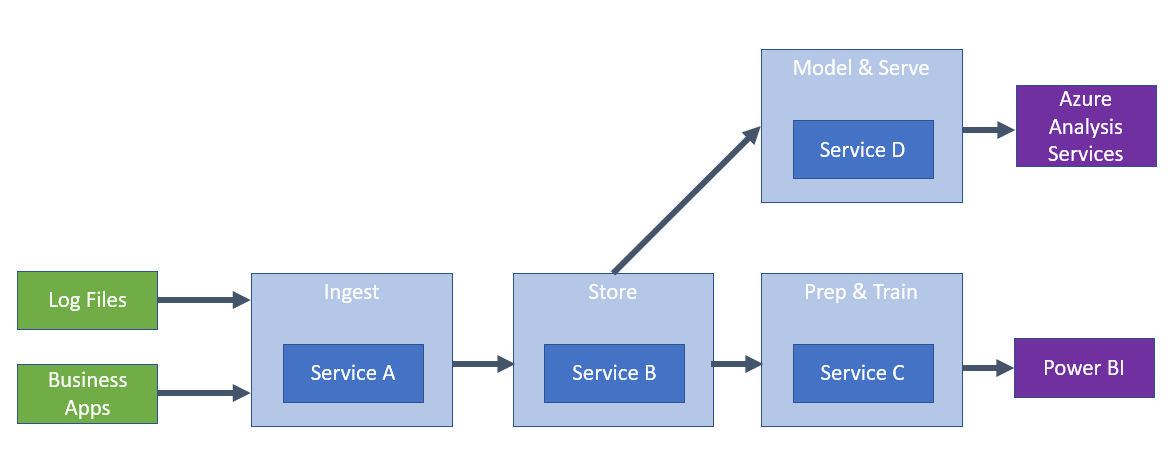
]D.

**Azure SQL Datawarehouse**

### **Question 17**

Domain :Design data processing solutions

A company is planning to build a solution that would contain the below layers.

You have to decide on which services will be used for each layer.

Which of the following would you choose as the service to use Service B?

]A.

**Azure Blob Storage**

]B.

**Azure Data Factory**

]C.

**Azure Databricks**

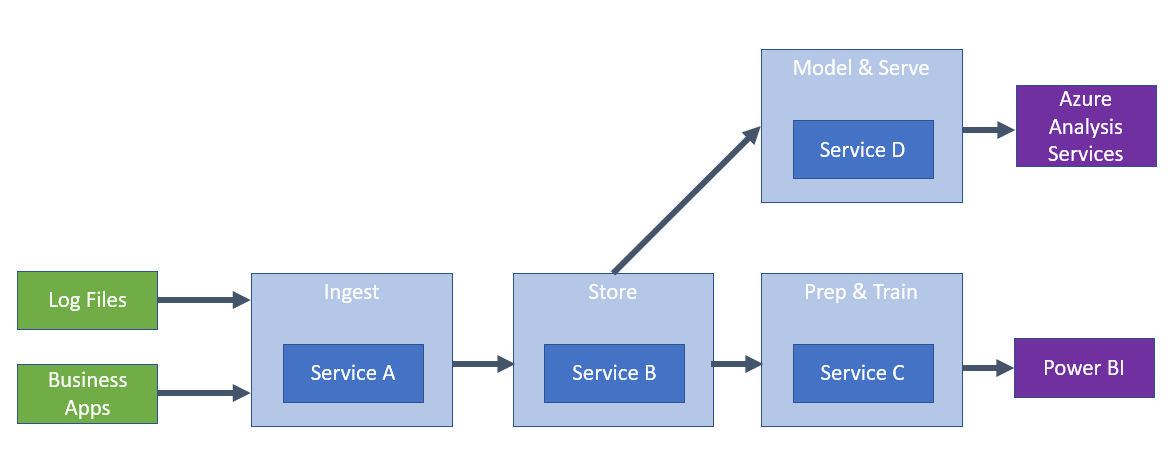
]D.

**Azure SQL Datawarehouse**

### **Question 18**

Domain :Design data processing solutions

A company is planning to build a solution that would contain the below layers.

You have to decide on which services will be used for each layer.

Which of the following would you choose as the service to use Service C?

]A.

**Azure Blob Storage**

]B.

**Azure Data Factory**

]C.

**Azure Databricks**

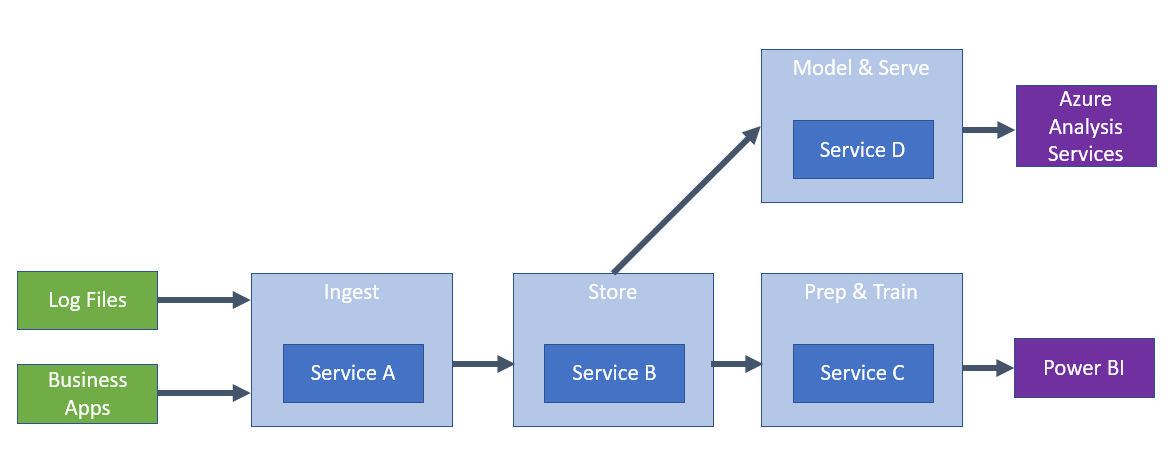
]D.

**Azure SQL Datawarehouse**

### **Question 19**

Domain :Design data processing solutions

A company is planning to build a solution that would contain the below layers.

You have to decide on which services will be used for each layer.

Which of the following would you choose as the service to use Service D?

]A.

**Azure Blob Storage**

]B.

**Azure Data Factory**

]C.

**Azure Databricks**

]D.

**Azure SQL Datawarehouse**

### **Question 20**

Domain :Design Azure data storage solutions

A company currently stores data about its customers. The different properties of the customer data are shown below.

|  |  |  |  |
| --- | --- | --- | --- |
| **Name** | **Data populated** | **Unique values** | **Distinct values** |
| **Customer ID** | 100 % | Each value is unique | 50,000 |
| **Customer Surname** | 98% | 50% of the values are unique | 32,000 |
| **Customer Given Name** | 98% | 50% of the values are unique | 25,000 |
| **Customer Birth Date** | 97% | 30% of the values are unique | 150 |
| **Customer Category** | 100% | 0% of the values are unique | 30 |

The data is going to be stored in an Azure Cosmos DB container. The queries on the data will be filtered by using the Customer Category and the Customer Surname.

Which of the following would you use as the Partition Key?

]A.

**Customer ID**

]B.

**Customer Surname**

]C.

**Customer Given Name**

]D.

**Customer Category**

### **Question 21**

Domain :Design Azure data storage solutions

A company currently stores data about its customers. The different properties of the customer data are shown below.

|  |  |  |  |
| --- | --- | --- | --- |
| **Name** | **Data populated** | **Unique values** | **Distinct values** |
| **Customer ID** | 100 % | Each value is unique | 50,000 |
| **Customer Surname** | 98% | 50% of the values are unique | 32,000 |
| **Customer Given Name** | 98% | 50% of the values are unique | 25,000 |
| **Customer Birth Date** | 97% | 30% of the values are unique | 150 |
| **Customer Category** | 100% | 0% of the values are unique | 30 |

The data is going to be stored in an Azure Cosmos DB container. The queries on the data will be filtered by using the Customer Category and the Customer Surname.

Which of the following would you use as the Item ID?

]A.

**Customer ID**

]B.

**Customer Surname**

]C.

**Customer Given Name**

]D.

**Customer Category**

### **Question 26**

Domain :Design Azure data storage solutions

A company wants to create multiple Cosmos DB accounts. Each account has different requirements. Below are the requirements for each account.

* Compaccount-stag – This account should be able to store log records.
* Compaccount-prod – This account should be able to store Social media mentions.

Which of the following would you use as the API for the Compaccount-stag account?

]A.

**Cassandra**

]B.

**Gremlin**

]C.

**SQL**

]D.

**Table**

### **Question 27**

Domain :Design Azure data storage solutions

A company wants to create multiple Cosmos DB accounts. Each account has different requirements. Below are the requirements for each account.

* Compaccount-stag – This account should be able to store log records.
* Compaccount-prod – This account should be able to store Social media mentions.

Which of the following would you use as the API for the Compaccount-prod account?

]A.

**Cassandra**

]B.

**Gremlin**

]C.

**SQL**

]D.

**Table**

### **Question 28**

Domain :Design Azure data storage solutions

A company is designing an application that would be used to store images. They are going to be using Azure blob storage. They have the following requirements when it comes to the storage of images.

* When an image is first uploaded, it would be accessed frequently.
* After a week, the images would not be accessed frequently. But if accessed, it would need to be available within 30 seconds.
* After a year, the data would not be accessed that frequently, but it would need to be available within 5 minutes if it was accessed.
* The data storage costs must be minimized.

Which of the following would you choose as the storage tier for the images for the first week?

]A.

**Hot**

]B.

**Cool**

]C.

**Stale**

]D.

**Archive**

### **Question 29**

Domain :Design Azure data storage solutions

A company is designing an application that would be used to store images. They are going to be using Azure blob storage. They have the following requirements when it comes to the storage of images.

* When an image is first uploaded, it would be accessed frequently.
* After a week, the images would not be accessed frequently. But if accessed, it would need to be available within 30 seconds.
* After a year, the data would not be accessed that frequently, but it would need to be available within 5 minutes if it was accessed.
* The data storage costs must be minimized.

Which of the following would you choose as the storage tier for the images after a month?

]A.

**Hot**

]B.

**Cool**

]C.

**Stale**

]D.

**Archive**

### **Question 30**

Domain :Design Azure data storage solutions

A company is designing an application that would be used to store images. They are going to be using Azure blob storage. They have the following requirements when it comes to the storage of images.

* When an image is first uploaded it would be accessed frequently.
* After a week, the images would not be accessed frequently. But if accessed, it would need to be available within 30 seconds.
* After a year the data would not be accessed that frequently, but if it was accessed, it would need to be available within 5 minutes.
* The data storage costs must be minimized.

Which of the following would you choose as the storage tier for the images after a year?

]A.

**Hot**

]B.

**Cool**

]C.

**Stale**

]D.

**Archive**

### **Question 31**

Domain :Design for data security and compliance

Your company wants to design a system that would consist of an Azure virtual machine and an Azure SQL database. The database would not have any Internet connectivity. You need to implement a solution that would ensure that the virtual machine could access the database. Which of the following would you implement for this requirement?

]A.

**Add a virtual network service endpoint.**

]B.

**Add an Application gateway.**

]C.

**Add a virtual network gateway.**

]D.

**Add an Azure Load balancer.**

### **Question 32**

Domain :Design Azure data storage solutions

A company wants to design a data store that would be used to store telemetry data. Which of the following could be used as the underlying data store?

]A.

**Azure Databricks**

]B.

**Azure SQL data warehouse**

]C.

**Azure Cosmos DB**

]D.

**Azure Functions.**

### **Question 33**

Domain :Design Azure data storage solutions

Your company is planning to use the Azure SQL database and Azure storage accounts for an application. The application would extract data, convert the data to text documents and store them in the storage account. The text documents must be accessible from an SMB network share. Which of the following would you use as the underlying service type for the Azure storage account?

]A.

**Queue**

]B.

**Files**

]C.

**Blob**

]D.

**Table**

### **Question 34**

Domain :Design Azure data storage solutions

A company has an on-premise Microsoft SQL Server. They want to migrate the database to Azure SQL Databases.

Which of the following would they use as the file type for exporting the on-premise database?

]A.

**BACPAC**

]B.

**DAC**

]C.

**VHD**

]D.

**VHDX**

### **Question 35**

Domain :Design Azure data storage solutions

A company has an on-premise Microsoft SQL Server. They want to migrate the database to Azure SQL Databases.

Which of the following should be the underlying storage type for the exported data?

]A.

**Blob**

]B.

**Disk**

]C.

**File**

]D.

**Queue**

### **Question 36**

Domain :Design data processing solutions

Your company currently stores data in different types of Azure cloud-based databases. The company wants to consolidate the data into a single relational database. The data would be ingested at a set time of the day. Which of the following could be a recommendation to implement this requirement?

]A.

**SQL Server Migration Assistant**

]B.

**SQL Data Sync**

]C.

**Azure Data Factory**

]D.

**Azure Database Migration Service**

### **Question 37**

Domain :Design data processing solutions

A company wants to implement an Azure Databricks cluster. The cluster configuration needs to meet the following requirements.

* Multiple users must be able to use the cluster.
* Overall costs must be reduced.
* Query latency should be minimized.

Which of the following should be implemented as the cluster configuration for this requirement?

]A.

**Standard cluster with Autoscaling enabled**

]B.

**High Concurrency cluster with Autoscaling enabled**

]C.

**Standard cluster with Auto Termination enabled**

]D.

**High Concurrency cluster with Auto Termination enabled**

### **Question 38**

Domain :Design data processing solutions

A company wants to migrate an on-premise MySQL database that is 800 GB in size. The database needs to be migrated to Azure database for MySQL. The migration must be performed in such a way that it would minimize interruptions to applications that use the database. Which of the following would you use to fulfill this requirement?

]A.

**Azure Database Migration Service**

]B.

**Import and Export**

]C.

**Azure Data Sync**

]D.

**MySQL WorkBench**

### **Question 39**

Domain :Design Azure data storage solutions

A company wants to use the Azure SQL database service. Business apps will be accessing the database. They want to create an Azure SQL database managed instance. They want to ensure that the database can automatically recover from a full or partial loss of the Azure SQL database service in the primary region. Which of the following can help achieve this requirement?

]A.

**Failover-groups**

]B.

**Azure SQL Data Sync**

]C.

**SQL Replication**

]D.

**Active geo-replication**

### **Question 40**

Domain :Design Azure data storage solutions

A company is making use of Azure stream analytics for a solution. They want to ensure that the solution remains available even in the event of Azure service updates. Which of the following should they implement for this requirement? Choose 2 answers from the options given below.

A.

**Deploy an Azure Stream Analytics job to one region that is part of a paired region.**

B.

**Deploy an Azure Stream Analytics job to each region of a paired region.**

C.

**Monitor jobs in both regions for failure.**

D.

**Monitor the job in the primary region for failure.**

### **Question 41**

Domain :Design data processing solutions

A company needs to design a solution that would require to perform analytics and visualization on a large data set. The solution should use notebooks, automate clusters and provide the ability to use Power BI to visualize the data. Which of the following would you use for this requirement?

]A.

**Azure Batch**

]B.

**Azure Stream Analytics**

]C.

**Azure Databricks**

]D.

**Azure HDInsight**

### **Question 42**

Domain :Design Azure data storage solutions

[**View Case Study**](javascript:;)

**Overview**

A company currently has the following virtual machines in their on-premise data centre

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Role** | **Database Size** | **Type** | **Destination on Azure** |
| **comp\_sql1** | Microsoft SQL Server | 2 TB | Hyper-V | Azure SQL Database |
| **comp\_sql2** | Microsoft SQL Server | 2 TB | Hyper-V | Azure SQL Database |
| **comp\_sql3** | Microsoft SQL Server | 90 GB | Hyper-V | Azure Virtual Machine |
| **comp\_sap1** | SAP | 1 TB | VMWare | On-premise |
| **comp\_sap2** | SAP | 1 TB | VMWare | On-premise |

**Requirements**

The company wants to migrate the SQL server workloads to Azure. Below are the key requirements

* The server comp\_sql3 requires an initial IOPS of 35000
* The servers comp\_sql1 and comp\_sql2 must use the vCore model and should also use replicas. These servers must support an IOPS of 8000.
* The compute and storage resources must be scaled independently
* The data from the SQL Servers must use zone redundant storage
* The current applications running on the on-premise servers must be able to interact with the databases on Azure.
* A regional disaster recover strategy must also be in place
* The database backups must be retained for 7 years
* The server comp\_sql1 contains sales data. Data analysis must be performed on this data.  A solution must in place which would read data from the database, perform ETL and then output the results to Power BI. The solution must use managed clusters to minimize costs.
* The analytics solution which would be in place for the sales data must be available even in the event of a regional outage.
* All employee PII data must be encrypted in rest and in transit
* Keys must be in place using hardware security modules
* The server comp\_sql3 must not be able to communicate over the default ports
* Data engineers must be able to set the compute resources for the Data warehouse to 250 DWUs
* The server costs for comp\_sql2 must be reduced when it is not being used during non-peak hours

Which of the following would you use as the disk type for server comp\_sql3 when it is migrated to Azure?

]A.

**Ultra Disk**

]B.

**Premium SSD**

]C.

**Standard SSD**

]D.

**Standard HDD**

### **Question 43**

Domain :Design Azure data storage solutions

[**View Case Study**](javascript:;)

**Overview**

A company currently has the following virtual machines in their on-premise data centre

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Role** | **Database Size** | **Type** | **Destination on Azure** |
| **comp\_sql1** | Microsoft SQL Server | 2 TB | Hyper-V | Azure SQL Database |
| **comp\_sql2** | Microsoft SQL Server | 2 TB | Hyper-V | Azure SQL Database |
| **comp\_sql3** | Microsoft SQL Server | 90 GB | Hyper-V | Azure Virtual Machine |
| **comp\_sap1** | SAP | 1 TB | VMWare | On-premise |
| **comp\_sap2** | SAP | 1 TB | VMWare | On-premise |

**Requirements**

The company wants to migrate the SQL server workloads to Azure. Below are the key requirements

* The server comp\_sql3 requires an initial IOPS of 35000
* The servers comp\_sql1 and comp\_sql2 must use the vCore model and should also use replicas. These servers must support an IOPS of 8000.
* The compute and storage resources must be scaled independently
* The data from the SQL Servers must use zone redundant storage
* The current applications running on the on-premise servers must be able to interact with the databases on Azure.
* A regional disaster recover strategy must also be in place
* The database backups must be retained for 7 years
* The server comp\_sql1 contains sales data. Data analysis must be performed on this data.  A solution must in place which would read data from the database, perform ETL and then output the results to Power BI. The solution must use managed clusters to minimize costs.
* The analytics solution which would be in place for the sales data must be available even in the event of a regional outage.
* All employee PII data must be encrypted in rest and in transit
* Keys must be in place using hardware security modules
* The server comp\_sql3 must not be able to communicate over the default ports
* Data engineers must be able to set the compute resources for the Data warehouse to 250 DWUs
* The server costs for comp\_sql2 must be reduced when it is not being used during non-peak hours

Which of the following would you choose as the database service tier?

]A.

**General Purpose**

]B.

**Basic**

]C.

**Standard**

]D.

**Premium**

### **Question 44**

Domain :Design for data security and compliance

[**View Case Study**](javascript:;)

**Overview**

A company currently has the following virtual machines in their on-premise data centre

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Role** | **Database Size** | **Type** | **Destination on Azure** |
| **comp\_sql1** | Microsoft SQL Server | 2 TB | Hyper-V | Azure SQL Database |
| **comp\_sql2** | Microsoft SQL Server | 2 TB | Hyper-V | Azure SQL Database |
| **comp\_sql3** | Microsoft SQL Server | 90 GB | Hyper-V | Azure Virtual Machine |
| **comp\_sap1** | SAP | 1 TB | VMWare | On-premise |
| **comp\_sap2** | SAP | 1 TB | VMWare | On-premise |

**Requirements**

The company wants to migrate the SQL server workloads to Azure. Below are the key requirements

* The server comp\_sql3 requires an initial IOPS of 35000
* The servers comp\_sql1 and comp\_sql2 must use the vCore model and should also use replicas. These servers must support an IOPS of 8000.
* The compute and storage resources must be scaled independently
* The data from the SQL Servers must use zone redundant storage
* The current applications running on the on-premise servers must be able to interact with the databases on Azure.
* A regional disaster recover strategy must also be in place
* The database backups must be retained for 7 years
* The server comp\_sql1 contains sales data. Data analysis must be performed on this data.  A solution must in place which would read data from the database, perform ETL and then output the results to Power BI. The solution must use managed clusters to minimize costs.
* The analytics solution which would be in place for the sales data must be available even in the event of a regional outage.
* All employee PII data must be encrypted in rest and in transit
* Keys must be in place using hardware security modules
* The server comp\_sql3 must not be able to communicate over the default ports
* Data engineers must be able to set the compute resources for the Data warehouse to 250 DWUs
* The server costs for comp\_sql2 must be reduced when it is not being used during non-peak hours

You have to ensure that data can be accessed from the on-premise network for the Azure SQL Databases. Which of the following would you use as the tool to access the data?

]A.

**SQL Server Configuration Manager**

]B.

**Azure Storage Explorer**

]C.

**Azure Portal**

]D.

**SQL Server Management Studio**

### **Question 45**

Domain :Design for data security and compliance

[**View Case Study**](javascript:;)

**Overview**

A company currently has the following virtual machines in their on-premise data centre

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Role** | **Database Size** | **Type** | **Destination on Azure** |
| **comp\_sql1** | Microsoft SQL Server | 2 TB | Hyper-V | Azure SQL Database |
| **comp\_sql2** | Microsoft SQL Server | 2 TB | Hyper-V | Azure SQL Database |
| **comp\_sql3** | Microsoft SQL Server | 90 GB | Hyper-V | Azure Virtual Machine |
| **comp\_sap1** | SAP | 1 TB | VMWare | On-premise |
| **comp\_sap2** | SAP | 1 TB | VMWare | On-premise |

**Requirements**

The company wants to migrate the SQL server workloads to Azure. Below are the key requirements

* The server comp\_sql3 requires an initial IOPS of 35000
* The servers comp\_sql1 and comp\_sql2 must use the vCore model and should also use replicas. These servers must support an IOPS of 8000.
* The compute and storage resources must be scaled independently
* The data from the SQL Servers must use zone redundant storage
* The current applications running on the on-premise servers must be able to interact with the databases on Azure.
* A regional disaster recover strategy must also be in place
* The database backups must be retained for 7 years
* The server comp\_sql1 contains sales data. Data analysis must be performed on this data.  A solution must in place which would read data from the database, perform ETL and then output the results to Power BI. The solution must use managed clusters to minimize costs.
* The analytics solution which would be in place for the sales data must be available even in the event of a regional outage.
* All employee PII data must be encrypted in rest and in transit
* Keys must be in place using hardware security modules
* The server comp\_sql3 must not be able to communicate over the default ports
* Data engineers must be able to set the compute resources for the Data warehouse to 250 DWUs
* The server costs for comp\_sql2 must be reduced when it is not being used during non-peak hours

You have to ensure that data can be accessed from the on-premise network for the Azure SQL Databases. Which of the following would you use as the port number to connect to the database?

]A.

**80**

]B.

**8080**

]C.

**1433**

]D.

**3306**

### **Question 46**

Domain :Design for data security and compliance

[**View Case Study**](javascript:;)

**Overview**

A company currently has the following virtual machines in their on-premise data centre

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Role** | **Database Size** | **Type** | **Destination on Azure** |
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* The server comp\_sql3 must not be able to communicate over the default ports
* Data engineers must be able to set the compute resources for the Data warehouse to 250 DWUs
* The server costs for comp\_sql2 must be reduced when it is not being used during non-peak hours

The company wants to ensure that data is encrypted when it is stored in the Azure SQL database. Which of the following could be used for this requirement?

]A.

**Azure Disk Encryption**

]B.

**Service Encryption**

]C.

**Transparent Data Encryption**

]D.

**Azure Key Vault**

### **Question 47**

Domain :Design for data security and compliance

[**View Case Study**](javascript:;)

**Overview**

A company currently has the following virtual machines in their on-premise data centre

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* Data engineers must be able to set the compute resources for the Data warehouse to 250 DWUs
* The server costs for comp\_sql2 must be reduced when it is not being used during non-peak hours

One of the databases is going to store sensitive data. You have to implement a solution that would be used to identify the sensitive data and monitor access to the data. Which of the following would you implement for this requirement? Choose 3 answers from the options given below.

A.

**Make use of Data Discovery and Classification.**

B.

**Implement Transparent Data Encryption.**

C.

**Enable auditing for the database.**

D.

**Run a vulnerability assessment.**

### **Question 48**

Domain :Design for data security and compliance

[**View Case Study**](javascript:;)

**Overview**

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**Requirements**

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* The server comp\_sql3 must not be able to communicate over the default ports
* Data engineers must be able to set the compute resources for the Data warehouse to 250 DWUs
* The server costs for comp\_sql2 must be reduced when it is not being used during non-peak hours

You have to ensure that a backup strategy is present for the serve comp\_sql1 and comp\_sql2. Which of the following would you implement?

]A.

**Geo-redundancy**

]B.

**Auto-failover groups**

]C.

**Long term retention**

]D.

**Disk backup**

### **Question 49**

Domain :Design for data security and compliance

[**View Case Study**](javascript:;)

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**Requirements**

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* Data engineers must be able to set the compute resources for the Data warehouse to 250 DWUs
* The server costs for comp\_sql2 must be reduced when it is not being used during non-peak hours

You need to implement disaster recovery for the data analysis solution. Which of the following would you implement for this requirement? Choose 3 answers from the options given below.

A.

**Ensure to create multiple Azure Databricks workspaces in the same region.**

B.

**Ensure to create multiple Azure Databricks workspaces in different region.**

C.

**Ensure to use zone redundant storage.**

D.

**Ensure to use geo-redundant storage.**

E.

**Migrate the users, notebooks and cluster configuration from one region to another.**

F.

**Migrate the users, notebooks and cluster configuration to another workspace in the same region.**

### **Question 50**

Domain :Design data processing solutions

You want to make use of Azure Stream Analytics. The Stream Analytics instance will be receiving data from IoT enabled devices. You need to send the data onto Cosmos DB.

Which of the following would you need to set in Azure Stream Analytics?

]A.

**A container input target**

]B.

**A Cosmos DB input target**

]C.

**A container output target**

]D.

**A Cosmos DB output target**

### **Question 51**

Domain :Design data processing solutions

You want to make use of Azure Stream Analytics. The Stream Analytics instance will be receiving data from IoT enabled devices. You need to send the data to Cosmos DB.

Which of the following needs to be created in Cosmos DB beforehand?

]A.

**A container**

]B.

**A document store**

]C.

**A file store**

]D.

**A table**

### **Question 52**

Domain :Design data processing solutions

A company wants to design a data processing system. Data would be ingested via Kafta streams into Azure Data Lake Storage. The data needs to be processed by an Apache Spark-based analytics service.

The company decides to use Azure SQL Data Warehouse as the analytics service.

Would this fulfill the requirement?

]A.**Yes**

]B.**No**

### **Question 53**

Domain :Design data processing solutions

A company wants to design a data processing system. Data would be ingested via Kafta streams into Azure Data Lake Storage. The data needs to be processed by an Apache Spark-based analytics service.

The company decides to use Azure Databricks as the analytics service.

Would this fulfill the requirement?

]A.**Yes**

]B.**No**

### **Question 54**

Domain :Design data processing solutions

A company wants to design a data processing system. Data would be ingested via Kafta streams into Azure Data Lake Storage. The data needs to be processed by an Apache Spark-based analytics service.

The company decides to use Azure Stream Analytics as the analytics service.

Would this fulfill the requirement?

]A.**Yes**

]B.**No**

### **Question 55**

Domain :Design data processing solutions

A company wants to design a data processing system. Data would be ingested via Kafta streams into Azure Data Lake Storage. The data needs to be processed by an Apache Spark-based analytics service.

The company decides to use Azure Analysis service as the analytics service.

Would this fulfill the requirement?

]A.**Yes**

]B.**No**