

DP-700 Section 1: Easy Level (Q1–8 with Answers)

Q1. A retail company stores sales data in CSV files on Azure Blob Storage. They want to load this data into Azure Synapse Analytics for reporting. Describe the steps to ingest this data efficiently and automate the process using Azure Data Factory.

1. Create linked services for Blob and Synapse. 2. Define datasets. 3. Build pipeline with Copy Activity. 4. Add trigger for automation. 5. Optimize with parallel copy/PolyBase.

Q2. A financial firm wants to move their SQL Server database to Azure. Compare Azure SQL Database, Managed Instance, and Virtual Machines for this migration.

Azure SQL DB: fully managed; limited features. Managed Instance: near 100% compatible; ideal for lift-and-shift. SQL on VM: full control; higher maintenance. Best: Managed Instance.

Q3. Your organization generates daily JSON files from IoT devices. Explain how you would design a pipeline in ADF to process, transform, and store them.

1. Source: Blob Storage. 2. Use Mapping Data Flow to parse/flatten JSON. 3. Transform and load into SQL or Data Lake. 4. Trigger on new files. 5. Monitor in ADF.

Q4. A startup wants to store product catalog images and metadata. Suggest suitable Azure storage services.

Images: Blob Storage; Metadata: Table Storage or Cosmos DB. Use CDN for delivery and SAS for secure access.

Q5. A marketing team wants to visualize data from SQL, CSV, and APIs. Outline an end-to-end solution using Synapse and Power BI.

1. Ingest via ADF. 2. Transform in Synapse. 3. Create semantic views. 4. Connect Power BI. 5. Secure with RLS and AAD.

Q6. A company needs to ensure data is secure during transfer and storage. Describe how encryption works at rest and in transit.

At rest: Storage Service Encryption (AES-256), CMK in Key Vault. In transit: HTTPS/TLS, private endpoints.

Q7. You are analyzing large website logs in near real-time. What Azure services would you combine and why?

Event Hubs for ingestion, Stream Analytics for processing, Synapse/Data Lake for storage, Power BI for visualization.

Q8. A client's analytics team needs to refresh Power BI datasets directly from Synapse. Explain how to configure and optimize.

Connect Power BI to Synapse via AAD. Schedule refresh. Optimize with materialized views, partitions, caching, and RLS.