Power BI Mock Questions and Answers

Q1: What are the key differences between Power BI Desktop, Power BI Service, and Power BI Mobile?

Answer:

- **Power BI Desktop:** A desktop application used for data modeling, report building, and creating visualizations.

- **Power BI Service:** A cloud-based service used for sharing, collaboration, and managing dashboards and reports.

- **Power BI Mobile:** A mobile application for viewing and interacting with reports and dashboards on-the-go.

Q2: How do you optimize Power BI reports for performance?

Answer:

1. Use appropriate data granularity for visuals.

2. Avoid using too many custom visuals.

3. Use relationships and avoid calculated columns where possible.

4. Implement aggregation in the database itself, not in Power BI.

5. Optimize DAX queries and avoid unnecessary calculated measures.

6. Disable auto date/time in model options.

Q3: How do you create a calculated column in Power BI? Give an example.

Answer:

1. Go to **Modeling > New Column**.

2. Write a DAX formula for the column.

Example:
To calculate total sales:
Total Sales = 'Sales'[Quantity] * 'Sales'[Unit Price]

Q4: Explain the significance of "Power Query Editor" in Power BI.

Answer:

- **Data Transformation:** Used for cleaning, reshaping, and transforming data before analysis.

- **Merge/Append Queries:** Combine multiple datasets.

- **Applied Steps:** Tracks changes made to the data.

- **Custom Columns:** Add calculated columns based on business logic.

Q5: How do you handle many-to-many relationships in Power BI?

Answer:

1. Use a **bridge table** with unique values to create one-to-many relationships.

2. Leverage **dual storage mode** for optimized queries.

Q6: How can you implement drill-through functionality in Power BI?

Answer:

1. Add a drill-through page in the report.

2. Add fields to the drill-through section in the visualizations pane.

3. Enable users to click on visuals and navigate to a detailed report filtered for their selection.

Q7: What are Aggregates in Power BI? How are they used?

Answer:
Aggregates summarize numerical data (SUM, AVERAGE, MIN, MAX).
Example:
In a visualization, setting a column to **SUM** will show the total of that column.

Q1: What is Power BI?

Answer:
Power BI is a business analytics tool by Microsoft that allows you to connect to data, transform it, create visualizations, and share insights through interactive dashboards and reports.

Q2: Name three key components of Power BI.

Answer:

1. Power BI Desktop

2. Power BI Service

3. Power BI Mobile

Q3: What is the difference between a "Report" and a "Dashboard" in Power BI?

Answer:

- **Report:** A detailed multi-page document with various visualizations, charts, and tables.

- **Dashboard:** A single-page summary containing pinned visuals from one or multiple reports.

Q4: What is the purpose of a slicer in Power BI?

Answer:
A slicer is used to filter data in a report based on selected criteria (e.g., date, category, etc.).

Q5: How can you import data into Power BI?

Answer:
Go to **Home > Get Data**, then select the data source (Excel, SQL Server, Web, etc.), and load the data into Power BI.

Q6: What are some common visualization types in Power BI?

Answer:

1. Bar chart

2. Line chart

3. Pie chart

4. Map

5. Table

Q7: What is DAX in Power BI?

Answer:
DAX (Data Analysis Expressions) is a formula language used to create custom calculations and measures in Power BI.

Q8: How can you apply filters to a report?

Answer:
Filters can be applied by using the **Filters Pane** or by adding slicers directly to the report canvas.

Q9: What is a measure in Power BI?

Answer:
A measure is a calculated field created using DAX to aggregate data dynamically (e.g., sum of sales, average profit).

Q10: What is the "Refresh" option in Power BI?

Answer:
The "Refresh" option updates the report with the latest data from the data source, ensuring the visuals are up-to-date.

Q1: What are the types of relationships in Power BI?

Answer:

1. One-to-One (1:1)

2. One-to-Many (1:* or *:1)

3. Many-to-Many (:)

Q2: How do you create a new report in Power BI?

Answer:

1. Open Power BI Desktop.

2. Import data using **Get Data**.

3. Drag fields to the canvas and choose a visualization type.

Q3: What is the use of a line chart in Power BI?

Answer:
A line chart is used to display trends over time or a continuous data range.

Q4: What is the "Fields Pane" in Power BI?

Answer:
The **Fields Pane** lists all the tables, columns, and measures from the data model that can be dragged onto the canvas for visualizations.

Q5: How do you rename a column in Power BI?

Answer:

1. Go to **Transform Data** in Power Query.

2. Right-click the column header and select **Rename**.

3. Type the new name and press Enter.

Q6: What is the "Transform Data" feature in Power BI?

Answer:
The "Transform Data" feature opens Power Query Editor, which is used for data cleaning, shaping, and transformation before analysis.

Q7: What is a KPI visual in Power BI?

Answer:
A KPI (Key Performance Indicator) visual displays progress toward a measurable goal using indicators like target values, trends, and actual performance.

Q8: How do you create a calculated field?

Answer:

1. Go to the **Modeling** tab.
2. Click **New Measure**.
3. Write the DAX formula, e.g., Profit = [Sales] - [Cost].

Q9: What are hierarchy fields in Power BI?

Answer:
Hierarchies group multiple fields into a parent-child structure, e.g., Year > Month > Day for a date hierarchy.

Q10: Can Power BI connect to live data sources?

Answer:
Yes, Power BI supports live connections through **DirectQuery** or **Live Connection** for real-time updates.

Q1: What is a Power BI workspace?

Answer:
A workspace in Power BI is a collaborative environment in the Power BI Service where you can share and manage reports, datasets, and dashboards with a team.

Q2: What is the use of a pie chart in Power BI?

Answer:
A pie chart is used to display data in the form of proportional slices, showing percentage or part-to-whole relationships.

Q3: How do you add a new data source to an existing Power BI report?

Answer:

1. Click on **Home > Get Data**.

2. Choose the new data source.

3. Import or connect to the new data and integrate it into the existing model.

Q4: What are slicers used for in Power BI?

Answer:
Slicers are used to filter data visually on a report or dashboard, providing users with an easy way to explore and analyze data interactively.

Q5: What file formats can be exported from Power BI?

Answer:
Power BI allows exporting to formats like **PDF**, **PowerPoint**, and **Excel**.

Q6: How do you publish a Power BI report?

Answer:
Click on **File > Publish > Publish to Power BI Service**, log in to your account, and select the desired workspace for publishing.

Q7: What is a data model in Power BI?

Answer:
A data model in Power BI organizes data by creating relationships between tables, calculated columns, and measures for effective analysis.

Q8: What is a card visual used for in Power BI?

Answer:
A card visual is used to display a single metric or value, like total sales or profit, prominently on the report.

Q9: How do you create relationships between tables in Power BI?

Answer:

1. Go to the **Model View**.

2. Drag and drop fields between tables to create relationships.