**Power Query Interview Questions & Answers**

1. **What is Power Query, and what role does it play in Power BI?**

Power Query is a tool in Power BI that helps to connect, clean, and transform data before using it for reports,It makes raw data ready for analysis.

1. **How do you connect to different data sources using Power Query?**

We can connect to many data sources like Excel, CSV, SQL Server, web pages, SharePoint, etc. In Power BI, we click 'Get Data', select the source and then connect.

1. **Can you explain the process of data transformation in Power Query?**

Data transformation means changing data into a proper format. For example: removing extra columns, splitting text, changing data type, filtering rows. All these steps are done step-by-step in Power Query.

1. **What are some common data transformation operations you can perform in Power Query?**

Remove duplicates, filter rows, merge/append tables, change column types, add new calculated columns.

1. **How do you handle missing or duplicate data in Power Query?**

For missing data: Replace with default value, or remove those rows

For duplicates: Use 'Remove Duplicates' option.

1. **Explain the difference between merging and appending queries in Power Query.**

Merging = joining two tables side by side (like SQL joins). Appending = stacking tables one below the other (like 'union').

1. **What are conditional columns, and how do you create them in Power Query?**

Conditional columns are columns created based on 'if…then…else' logic. Example: If marks > 40 -> 'Pass' else 'Fail'. We can create them by using 'Add Conditional Column' option.

1. **Describe the purpose of index columns in Power Query.**

Index column is used to give row numbers like 1,2,3…. It helps in sorting, identifying rows, or creating keys for merging.

1. **How can you create a calendar table using Power Query?**

We can create a calendar table by generating a list of dates (start date to end date) in Power Query and then converting it into a table with extra columns like Year, Month, Day.

**10.What are some best practices for optimizing data loading and transformation in Power Query?**

Remove unnecessary columns, filter data early, use correct data types, avoid complex steps if not needed, keep queries clean and well named.