TOP 50 Power BI Interview Question and Answers

Power BI Basics

1. **What is Power BI?**
   A data visualization and business intelligence tool.

2. **Difference between Desktop, Service, Mobile?**

   o **Desktop: Build reports**

   o **Service: Share & collaborate**

   o **Mobile: View on devices**

3. **What are dashboards?**
   Single-page visuals pinned from reports.

4. **What are reports?**
   Multi-page visuals built on a dataset.

5. **What are datasets?**
   The data sources used to create reports.

6. **What is a workspace?**
   A collaborative environment in Power BI Service.

7. **What is a tile?**
   A pinned visual on a dashboard.

Data Loading & Modeling

8. **How to import data?**
   Get Data → choose source → Load.

9. **Supported data sources?**
   Excel, CSV, SQL, Web, SharePoint, APIs, etc.

10. **What is Power Query Editor?**
    Interface for cleaning and transforming data.

11. **What is data modeling?**
    Structuring tables and relationships.

12. **What are relationships?**
    Logical connections between tables (e.g., Sales → Products).

13. **What is a star schema?**
    A model with fact tables connected to dimension tables.

14. **Table vs query?**
Queries prepare data; tables are loaded models.

15. **What is cardinality?**
Relationship type: one-to-one, one-to-many, many-to-many.

16. **Cross-filter direction?**
Determines how filters flow between tables.

Data Transformation

17. **What is M language?**
Power Query's scripting language.

18. **What are applied steps?**
Recorded transformations in Power Query.

19. **How to remove duplicates?**
Home → Remove Duplicates.

20. **How to split columns?**
Split by delimiter or number of characters.

21. **Merge queries = ?**
Joins two tables horizontally.

22. **Append queries = ?**
Stacks tables vertically.

23. **What is data profiling?**
Checking column quality, distribution, errors.

DAX Basics

24. **What is DAX?**
A formula language for calculations.

25. **Measure vs. calculated column?**

   o **Measure: Calculated at query time**

   o **Column: Calculated row-by-row and stored**

26. **CALCULATE()?**
Changes filter context for a calculation.

27. **SUM()?**
Adds values in a column.

28. **SUMX()?**
Iterates row by row and sums expressions.

29. **FILTER()?**
Returns a table that meets conditions.

30. **RELATED()?**
Fetches values from related tables.

31. **Row context vs filter context?**

   o **Row context: Row-by-row evaluation**

   o **Filter context: Filters applied to visuals/measures**

Visualization

32. **Types of visuals?**
Bar, Line, Matrix, Card, Map, KPI, Donut, etc.

33. **What are slicers?**
Visual filters for reports.

34. **Matrix visual?**
Similar to Pivot Table (rows + columns + values).

35. **Conditional formatting?**
Colors/icons applied based on rules.

36. **Drill-through?**
Navigate to a detailed page filtered by selected value.

37. **Drill-down?**
View data at a more granular level.

38. **Bookmarks?**
Saved views of report states.

39. **Custom visuals?**
Third-party visuals imported from marketplace.

Power BI Service

40. **How to publish a report?**
Home → Publish.

41. **What is a data gateway?**
Lets Power BI access on-premise data.

42. **What is scheduled refresh?**
Automatic data updates.

43. **Roles and permissions?**
Admin, Member, Contributor, Viewer.

44. **What is RLS (Row-Level Security)?**
Restricts data visibility for users.

Performance & Optimization

45. **What is query folding?**
Pushing transformations back to the data source for faster performance.

46. **How to improve performance?**
Reduce columns, use star schema, optimize DAX, avoid calculated columns where possible.

47. **Import vs DirectQuery?**

   o **Import: Data stored in Power BI (fast)**

   o **DirectQuery: Live database connection (slow but real-time)**

48. **Why use star schema?**
Better performance and cleaner relationships.

General

49. **Difference between Power BI and Excel?**
Excel: Spreadsheet analysis
Power BI: Interactive dashboards & BI modeling

50. **Explain a project where you used Power BI.**
(Your answer—describe data source, transformations, visuals, insights.)