📊 Power BI Interview Questions and Answers (1–50)

1. What is Power BI?

Answer: Power BI is a Microsoft business analytics tool that provides interactive visualizations and business intelligence capabilities.

2. What are the main components of Power BI?

Answer: Power BI Desktop, Power BI Service, Power BI Mobile, Power BI Gateway, Power BI Report Server.

3. What is Power BI Desktop?

Answer: A Windows application used to create reports and data models.

4. What is Power BI Service?

Answer: A cloud-based platform to publish, share, and collaborate on Power BI reports.

5. What is a dataset in Power BI?

Answer: A collection of data loaded into Power BI from various sources for analysis.

6. What is DAX?

Answer: Data Analysis Expressions – a formula language used in Power BI for calculations.

7. What are some commonly used DAX functions?

Answer: SUM, AVERAGE, CALCULATE, FILTER, RELATED, IF, SWITCH.

8. What is a measure in Power BI?

Answer: A calculation used in reporting, typically created using DAX.

9. What is a calculated column?

Answer: A column added to a table using DAX that stores calculated data row-wise.

10. What is the difference between measure and calculated column?

Answer: Measures are calculated at query time and are dynamic; calculated columns are stored in the model.

11. What is Power Query?

Answer: A data transformation and preparation engine in Power BI.

12. What is M language?

Answer: The language used in Power Query for data transformation tasks.

13. How do you connect Power BI to Excel?

Answer: Use "Get Data" > Excel and select the workbook.

14. How to create a relationship between tables in Power BI?

Answer: Use the "Model" view and drag columns to create a relationship.

15. What is cardinality in Power BI relationships?

Answer: Defines the type of relationship: One-to-One, One-to-Many, Many-to-One, Many-to-Many.

16. What are slicers in Power BI?

Answer: Visual filters that allow users to slice and dice data interactively.

17. What is a dashboard in Power BI?

Answer: A collection of visuals from multiple reports, pinned on a single page in Power BI Service.

18. What is the difference between a report and a dashboard?

Answer: A report is multi-page and detailed; a dashboard is single-page and summary-focused.

19. What is Power BI Gateway?

Answer: A bridge between on-premises data sources and Power BI cloud services.

20. What are filters in Power BI?

Answer: Tools to restrict data at report, page, or visual level.

21. What is a hierarchy in Power BI?

Answer: A set of related columns used for drill-down analysis (e.g., Year > Month > Day).

22. What is drillthrough in Power BI?

Answer: Allows users to right-click a visual to view details in another report page.

23. What is drilldown?

Answer: Enables users to explore data at a more granular level within a visual.

24. What is a tooltip in Power BI?

Answer: A pop-up that appears when you hover over a visual, showing more data.

25. What is a KPI visual in Power BI?

Answer: A visual that tracks performance against a target.

26. How to publish a Power BI report?

Answer: Click "Publish" in Power BI Desktop and select a workspace.

27. What are workspaces in Power BI?

Answer: Containers for dashboards, reports, datasets, and dataflows in Power BI Service.

28. What is a dataflow?

Answer: A reusable ETL pipeline that stores data in Power BI Service.

29. What is row-level security (RLS)?

Answer: Controls access to data by user roles using DAX filters.

30. What are themes in Power BI?

Answer: JSON-based configurations to style reports consistently.

31. Can Power BI connect to real-time data?

Answer: Yes, using streaming datasets and push data from APIs or IoT devices.

32. What are custom visuals?

Answer: Visualizations developed by Microsoft or third parties that can be imported.

33. How can you optimize Power BI reports?

Answer: Use measures instead of calculated columns, reduce visuals, use proper data types.

34. What is DirectQuery?

Answer: A connection mode where queries run directly on the data source.

35. What is Import mode?

Answer: Loads data into Power BI for fast performance and full feature support.

36. What is composite model?

Answer: A model that combines Import and DirectQuery in one report.

37. What are bookmarks?

Answer: Save the current view of a report page to return to later.

38. How do you create a calculated table?

Answer: Using DAX in the "Modeling" tab: `Table = SUMMARIZECOLUMNS(...)`

39. What is a star schema?

Answer: A data model with one fact table and multiple dimension tables.

40. What is a snowflake schema?

Answer: A normalized version of star schema with multiple related dimensions.

41. What is the use of SUMX in DAX?

Answer: Evaluates an expression row by row over a table and sums the results.

42. What is ALL function in DAX?

Answer: Removes all filters from a column or table.

43. How to handle many-to-many relationships?

Answer: Using a bridge table with unique values to map the relationship.

44. What is the use of LOOKUPVALUE?

Answer: Returns the value from a column for the row matching specific conditions.

45. What is the difference between COUNT and COUNTA?

Answer: `COUNT` counts numeric values; `COUNTA` counts all non-blank values.

46. What is the use of SELECTEDVALUE?

Answer: Returns the selected value when a single value is selected; blank otherwise.

47. Can you schedule refresh in Power BI?

Answer: Yes, via Power BI Service settings.

48. What are the limitations of Power BI?

Answer: Row limits in visuals, size limits for datasets, performance issues with large DirectQuery.

49. What is Paginated Report?

Answer: Reports that fit well on printed pages, created in Power BI Report Builder.

50. How can you share a Power BI report with users?

Answer: Publish to Power BI Service and share via workspace, apps, or direct link.