**1: What is** **power BI and how does it differ from Excel?**

**A:** Power BI is a tool used to visualize and analyze data through interactive dashboards and reports.

* **Difference from Excel:**

Power BI is better for large data, real-time updates, and advanced visuals, while Excel mainly used for manual calculations and basic charts.

**2: Explain the concept of data modeling in power BI.**

**A**: Data modeling in Power BI means organizing your data so Power BI can understand how different tables are related to each other.

**3: What are the different types of connections available in power BI?**

**A: Two main types of connections:**

* **Import:** Data is loaded into power BI and stored in its internal memory for fast performance.
* **Direct Query:** Data stays in the source, and power BI queries it in real-time when need.

**4: How do you handle data transformation in power BI?**

**A:** You handle data transformation in Power BI using Power Query.

**5. What is DAX ( Data Analysis Expressions ) and why is it important in power BI?**

**A:** DAX (Data Analysis Expressions) is a formula language in Power BI used to create custom calculations and measures. It is important because it helps in analyzing data, creating KPIs, and building advanced reports with meaningful insights**.**

**6. Can you explain the difference between calculated columns and measures in power BI?**

**A:** Calculated columns add data to tables, while measures calculate results based on filters in reports.

**7. How do you handle relationship between tables in power BI?**

**A**: In Power BI, you handle relationships by connecting tables using matching columns (keys) so they can work together in reports.

**8. What is the purpose of a power BI gateway?**

**A:** Power BI Gateway allows Power BI to access and refresh data from on-premises sources securely.

**9. How can you schedule data refresh in power BI service?**

**A:** You can schedule data refresh in Power BI Service by setting up a refresh schedule under the dataset settings.

**10. Explain the concept of row-level security in power BI.**

**A:** Row-level security in Power BI is used to show only specific data to different users based on rules.

**11. What is the power BI desktop and how does it differ from power BI service?**

**A:** Power BI Desktop is a tool to create reports, while Power BI Service is an online platform to share and view them.

**12. Explain the concept of Direct Query in power BI.**

**A:** Direct Query in Power BI connects directly to the data source and retrieves data in real-time without importing it.

**13. What are power BI templates and how are they useful?**

**A:** Power BI templates are reusable report files without data, useful for creating consistent reports with different data sources**.**

**14. How do you handle incremental data refresh in power BI?**

**A:** Incremental refresh in Power BI loads only new or updated data by setting filters on date or time columns.

**15. What is the role of power Query in power BI?**

**A:** Power Query in Power BI is used to connect, clean, and transform data before using it in reports.

**16. Explain the difference between calculated columns and calculated tables in power BI.**

**A:** Calculated columns add new data to existing tables row by row, while calculated tables create entirely new tables using DAX formulas.

**17. How do you create custom visuals in power BI?**

**A**: You create custom visuals in Power BI by importing them from the Power BI marketplace.

**18. What are the best practices for optimizing performance in power BI?**

**A:** To optimize Power BI performance, keep your data model simple and remove unnecessary data.

**19. How can you integrate power BI with other Microsoft products like Azure and office 365?**

**A:** Power BI connects to Azure and Office 365 to share data and reports easily across these tools.

**20. Explain the concept of aggregations in power BI.**

**A:** Aggregations in Power BI are summaries of data used to make reports faster.

**21. How do you handle error handline and data quality in power BI?**

**A:** You handle errors and data quality in Power BI by cleaning and fixing data using Power Query.

**22. What is the purpose of power BI Embedded and when would you use it?**

**A:** Power BI Embedded lets you put Power BI reports inside your app so users can see data there.