

1. What is Power BI, and what are its three main components?

Power BI is a Microsoft tool for data analysis and visualization.

Three main components:

- Power BI Desktop (for creating reports)
- Power BI Service (online sharing and collaboration)
- Power BI Mobile (view reports on mobile devices)

2. Name two business use cases for Power BI dashboards.

- Sales tracking: Monitor revenue, top products, and regions.
- HR analytics: Track employee headcount, turnover, and hiring trends.

3. How do you download and install Power BI Desktop?

open [powerbi.microsoft.com](https://powerbi.microsoft.com) and click "Download"

4. What is the difference between Power BI Desktop and Power BI Service?

- Power BI Desktop: Create and design reports (free).
- Power BI Service: Share and access reports online (requires account).

5. What file extension does a Power BI project use?

.pbix

6. Explain the role of Power Query in Power BI.

Power Query cleans, transforms, and loads data before it's used in visuals.

7. Why would a business prefer Power BI over Excel for reporting?

Power BI offers interactive dashboards, automated refresh, and better visuals.

8. Describe one limitation of the free version of Power BI.

You cannot share reports with others unless you have a Pro license.

9. What is a "published report" in Power BI Service?

It's a report created in Power BI Desktop and uploaded online to share and access.

10. How does Power BI Mobile enhance accessibility?

It lets users view dashboards and reports anytime from a phone or tablet.

11. Compare Power BI with Tableau—pros and cons.

Power BI pros: Cheaper, better Microsoft integration

Power BI cons: Less advanced visuals than Tableau

Tableau pros: Strong visuals and performance

Tableau cons: More expensive

12. Explain how Power BI integrates with Azure services.

It connects to Azure SQL, Azure Synapse, and Azure Machine Learning for deeper analysis and real-time data.

13. What are "gateways" in Power BI, and when are they needed?

Gateways connect Power BI to on-premise data sources (like SQL Server). Needed when data isn't in the cloud.

14. How would you convince a company to adopt Power BI? (ROI argument)

Power BI saves time, reduces manual reporting, and gives faster insights — leading to better decisions and cost savings.

15. What security features does Power BI offer for sensitive data?

- Row-level security (RLS)
- Data encryption
- Microsoft compliance standards (e.g., GDPR, ISO)