

Q1. What do you mean by BI? Explain.

BI stands for Business Intelligence. It is a set of technologies, processes, and tools used to analyze and present business information to support data-driven decision-making within an organization. BI aims to transform raw data into actionable insights and valuable knowledge that can be used by business leaders, managers, and other stakeholders to make informed decisions and improve business performance.

Q2. How Power-BI helps in BI, and how does it help Analysts? Explain.

Power BI is a powerful and popular business intelligence (BI) tool developed by Microsoft. It assists in BI by enabling users to connect to various data sources, perform data transformation and modeling, create interactive visualizations, and share insights with stakeholders.

Q3. Explain Descriptive analytics?

Descriptive analytics is a branch of data analytics that focuses on understanding historical data and providing insights into past events or trends. It involves analyzing and summarizing data to describe what has happened in a given period, helping businesses gain a better understanding of their performance, operations, and historical patterns. Descriptive analytics is typically the first step in the data analytics process and serves as the foundation for more advanced forms of analytics, such as predictive and prescriptive analytics.

Q4. Explain Predictive analytics?

Predictive analytics is an advanced branch of data analytics that focuses on analyzing historical data and using it to make predictions about future events or outcomes. Unlike descriptive analytics, which provides insights into past events, predictive analytics leverages statistical algorithms, machine learning, and data mining techniques to forecast what is likely to happen in the future. By identifying patterns and relationships in historical data, predictive analytics aims to make informed predictions that can guide decision-making and strategic planning.

Q5. Explain prescriptive analytics?

Prescriptive analytics is the most advanced and sophisticated branch of data analytics. It goes beyond descriptive and predictive analytics by not only providing insights into historical data and making predictions about future outcomes but also recommending optimal actions to achieve specific business objectives. In other words, prescriptive analytics not only tells you what is likely to happen but also suggests what actions should be taken to make desired outcomes a reality.

Q5. Write five real-life questions that PowerBi can solve.

Power BI can help answer a wide range of real-life questions across various industries and business functions. Here are five examples of real-life questions that Power BI can solve:

Sales Performance Analysis:

- What are the top-selling products or services in each region?
- How has sales revenue evolved over the past year, and what are the key factors influencing the changes?

- Which sales representatives are performing the best, and how can we incentivize others to improve?

Customer Segmentation and Analysis:

- How can we segment our customer base based on demographics, buying behavior, or preferences?
- What is the customer churn rate, and what are the common characteristics of customers who churn?
- Which customer segments are the most profitable, and how can we tailor marketing strategies for each segment?

Supply Chain and Inventory Optimization:

- How can we optimize inventory levels to meet demand while minimizing holding costs?
- What are the key supply chain bottlenecks, and how can we improve operational efficiency?
- Can we predict demand fluctuations and plan production and procurement accordingly?

Financial Performance and KPI Monitoring:

- What is the overall financial health of the organization, and how does it compare to previous periods or competitors?
- How are different cost centers or departments contributing to overall profitability?
- Are we meeting key financial metrics and targets such as ROI, EBITDA, or operating margin?

Marketing Campaign Effectiveness:

- Which marketing channels are driving the highest ROI, and where should we allocate our budget for future campaigns?
- How many leads or conversions have been generated from each marketing campaign, and what is the cost per acquisition?
- Can we identify patterns in customer behavior to personalize marketing efforts and increase engagement?