1. **What do you mean by BI? Explain.**

BI stands for business intelligence. Business intelligence refers to the processes and tools used to analyze business data, that help everyone in an organization make better-informed decisions. Also known as a decision support system (DSS), a BI system analyses current and historical data and presents findings in easily understandable reports, dashboards, graphs, charts, and maps that can be shared across the company.

1. **How Power BI helps in BI, and how does it help Analysts? Explain.**

Power BI is a business analytics service that delivers insight to enable fast, informed decisions.

Power BI helps analysts to create reports and dashboards to visualize data and gain insights.

Acquire data relevant to the analysis from sources such as databases, Excel files, CSV files, etc.

Clean and join the data as needed to prepare it for analysis. Conduct the analysis organize, design, and present the results of the analysis.

It can ingest data from a wide variety of sources, including SQL databases, CSV files, Excel files, and many more.

It includes intuitive tools for cleaning data, establishing relationships between data, computing new columns and other measures from the data, etc.

An intuitive but very powerful drag-and-drop visualization builder makes creating detailed visuals surprisingly straightforward and very quick, enabling you to look at your data in a wide variety of ways and identify patterns.

Those same visualization tools come with built-in features for creating and sharing reports and dashboards.

Power BI is capable of performing some impressive analyses, but it’s also a presentation tool that’s built for sharing those analyses. That’s critical for business analysts who aspire to make an impact with their work.

1. **Explain Descriptive analytics?**

Descriptive analytics is a type of analytics that examines historical data to understand what happened in the past. It helps summarize and present the data in a way that is easy to understand. It explains "What do we have?".

For example- Netflix gathers data on users’ in-platform behavior. They analyze this data to determine which TV series and movies are trending at any given time and list trending titles in a section of the platform’s home screen.

1. **Explain Predictive analytics?**

Predictive analytics is a type of analytics that examines historical data and makes predictions about future events.  It explains "What will occur?".

For example - Working in the [insurance](https://www.sam-solutions.com/industries/insurance-software-development/) industry means working with risks. This makes predictive analytics the best tool for this sector. Algorithms streamline the insurance claim approval process by reviewing previous claims and identifying risk factors. The process might take weeks when done manually; with smart analytics, it’s done automatically and instantly. This helps insurance companies correctly estimate future risks, as well as determine fraudulent claims in time and reject them, avoiding unreasonable expenses.

1. **Explain perspective analytics?**

Prescriptive analytics takes what has been learned through descriptive and predictive analysis and goes a step further by recommending the best possible courses of action for a business. It explains "What should we do?"

For example- Marketing and sales agencies have access to large amounts of customer data that can help them to determine optimal marketing strategies, such as what types of products pair well together and how to price products. Prescriptive analytics allows marketers and sales staff to become more precise with their campaigns and customer outreach, as they no longer have to act simply on intuition and experience.

1. **Write five real-life questions that PowerBi can solve.**

a. A Telephone network organization may look around for a reason **"why do customers shift to other networks?"** by using the details of customers and their feedback on who changed their network to other network operators.

b. An E-commerce company might dig their data to see the drop in sales, and patterns in sales, and understand customer buying behavior to know the reason **"Why sales are not increasing?"** despite the demand is there in the market.

c. A software product company may need to know **"Why should users opt for competitor company products/services?"** to maintain their current product sustainability and provide better service to their users.

d. Government may need to know **"About what topic are most people talking about?"** during any social evil event occurs that led to a burst in protests and revolts to stop the spread of false information or to mute people’s voices in specific regions to outside regions.

e. A Dataware warehouse will need to know **"Why a security breach occurred in the database? What data is lost?"** to concentrate on data recovery and tightening the security layer of the database.