Answer 1:-

BI stands for Business Intelligence.It is an umbrella term for data mining,data visualization and insight gathering. Organizations nowadays are collecting huge amounts of data.The sole purpose behind collecting this data is to gather insights to analyze the current performance, help find gaps in KPIs and predict future trends. BI answers business questions with relatively higher levels of accuracy as compared to human intelligence.

BI engineers and data analysts use tools like Power BI , Tableau etc and programming languages like Python/R to gather all the insights. Prediction for the future is done by machine learning and deep learning algorithms.

Answer 1:-

- Power BI as a tool is very easy to use.
- Analysts who were earlier working on other tools can learn it easily in less time.
- The drag and drop feature enables analysts to build reports easily and efficiently.
- The scheduled refresh is of great use in case the dashboard is connected to a live data source.
- Row level security helps in maintaining the integrity of the workspace.
- Multiple stakeholders can collaborate on Power BI Service and work jointly in a single project.
- It can connect to more than 80 kinds of data sources including text,csv,cloud services and databases.
- It has more than 100 different kinds of visuals that can represent almost any kind of metrics.
- It can be seamlessly integrated with existing applications.

Answer 2:-

- Descriptive analytics is the process of using current and historical data to identify trends and relationships. It's sometimes called the simplest form of data analysis because it describes trends and relationships but doesn't dig deeper.

- Basic statistical software, such as MS Excel or visualization tools, such as Google Charts and Tableau, can help parse data, identify trends and relationships between variables, and visually display information.

- Descriptive analytics is especially useful for communicating change over time and uses trends as a springboard for further analysis to drive decision making.

Answer 3:-

- Predictive analytics is the use of data to predict future trends and events. It uses historical data to forecast potential scenarios that can help drive strategic decisions.

- The predictions could be for the near future—for instance, predicting the malfunction of a piece of machinery later that day—or the more distant future, such as predicting your company's cash flows for the upcoming year.

- Predictive analysis can be conducted manually or using machine-learning algorithms. Either way, historical data is used to make assumptions about the future.

- One predictive analytics tool is regression analysis, which can determine the relationship between two variables (single linear regression) or three or more variables (multiple regression). The relationships between variables are written as a mathematical equation that can help predict the outcome should one variable change.

Answer 4:-

- Prescriptive analytics is the process of using data to determine an optimal course of action. By considering all relevant factors, this type of analysis yields recommendations for next steps. Because of this, prescriptive analytics is a valuable tool for data driven decision making.

- Machine-learning algorithms are often used in prescriptive analytics to parse through large amounts of data faster—and often more efficiently—than humans can.

- Using "if" and "else" statements, algorithms comb through data and make recommendations based on a specific combination of requirements.

- Prescriptive analytics is a tool to inform decisions and strategies and should be treated as such

Answer 5:-

- We can analyse the sales data of a company and analyze sales are higher in which region.

- We can find out which products are being sold more as compared to other products.

- We can do customer profile analysis for an airline and find out which segment of customers are contributing to maximum revenue and maintain good relations with them.

- We can analyse marks of school students and find out the subjects in which students are facing more difficulty as compared to others.

- We can analyse immigration data and find out tourists from which countries are contributing to the tourism sector and give special privileges on visa to encourage more travel.