

1. What is Business Intelligence (BI)?

BI is the process of collecting, analyzing, and presenting business data to help make better decisions.

2. What is ETL?

ETL stands for Extract, Transform, Load — it is the process of extracting data from sources, transforming it, and loading it into a database.

3. What is a Data Warehouse?

A Data Warehouse is a large storage system where data from different sources is collected and stored for analysis.

4. What are the components of Business Intelligence?

Data sources, ETL tools, Data warehouse, Reporting tools, and Dashboards.

5. What is power bi and why do we use it?

Power BI is a business analytics tool, developed by Microsoft that is used to visualize data, create reports, and make dashboards.

Why used:

1. To easily understand data through charts and graphs.
2. To help in better decision-making with insights.
3. To connect multiple data sources in one place.

6. What is a Decision Support System (DSS)?

DSS helps in making business decisions by analyzing large volumes of data and giving useful reports.

7. What is Data Visualization?

It is the process of displaying data using charts, graphs, and dashboards to understand trends and patterns.

8. What is Clustering in Machine Learning?

Clustering is grouping similar data points together without any prior labels.

9. What is Classification in Machine Learning?

Classification is assigning categories to data based on training with labeled data.

10. Name Classification Algorithms.

1. Decision Tree
2. Random Forest
3. K-Nearest Neighbors (KNN)
4. Support Vector Machine (SVM)
5. Logistic Regression
6. Naive Bayes

7. Gradient Boosting
8. AdaBoost

11. Name any two Clustering Algorithms.

1. K-Means Clustering
2. Hierarchical Clustering
3. DBSCAN
4. Mean Shift
5. Gaussian Mixture Models (GMM)
6. Agglomerative Clustering

12. What is Regression?

Regression predicts continuous values like sales, prices, etc.

13. What is Advanced Excel used for in BI?

It is used for data analysis, pivot tables, advanced charts, and automation with formulas.

14. What is a Data Mart?

A Data Mart is a smaller part of a data warehouse focused on a specific business area like sales or finance.

15. What is Data Profiling?

Data profiling checks the quality and structure of data before using it for analysis.

16. What is a Dashboard?

A dashboard is a visual display of key metrics and data trends in one screen.

17. What is Data Enrichment?

Data enrichment means enhancing existing data by adding more useful information.

18. What is a Lookup in ETL?

Lookup finds and matches data from one table to another table based on a key.

19. What is an Association Rule?

Association Rule finds relationships between variables, like in Market Basket Analysis (example: people who buy bread also buy butter).

20. What is the role of data in Business Intelligence?

Data is the base for analysis, insights, and making smart business decisions.