Section A: Objective Questions (20 Marks)

Each question carries 2 marks.

1. Define Data Analytics.

2. Which of the following is not a data type in Excel?
    a) Number
    b) Text
    c) Audio
    d) Date

3. What is the full form of SQL?

4. What is a **dashboard** in data visualisation tools like Power BI?

5. Name any two open-source data analytics tools.

6. What is **Data Cleaning**?

7. Which chart is best for showing parts of a whole?
    a) Bar Chart
    b) Line Chart
    c) Pie Chart
    d) Scatter Plot

8. Write the syntax to retrieve all records from a table named `Students` in SQL.

9. Mention two key features of Power BI.

10. What is **Data Interpretation**?

Section B: Short Answer Questions (40 Marks)

Answer any 5 questions. Each question carries 8 marks.

1. Explain the types of Data Analytics with suitable examples.

2. Describe the difference between Data, Information, and Knowledge.

3. What is Data Visualisation? Explain its importance in analytics.

4. Write an SQL query to find employees whose salary is greater than 50,000 from the table `Employee`.

5. Explain the difference between a Clustered Column Chart and a Stacked Column Chart in Power BI.

6. What are the key steps involved in the Data Analysis Process?

7. Explain with examples: Structured Data vs Unstructured Data.

Section C: Case Study / Practical Questions (40 Marks)

Answer any 2 questions. Each question carries 20 marks.

1. Case Study:
You are given a dataset containing the following fields: `Customer_ID`, `Customer_Name`, `City`, `Purchase_Amount`, `Purchase_Date`.

- List 4 types of analysis you can perform using this dataset.

- Suggest 3 appropriate visualizations to present insights from this data.

- Mention any 3 possible data quality issues you might encounter.

- List 2 KPIs you can track using this data.

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2. SQL Practical Questions:

Given a `Sales` table:

SaleID	Product	Quantity	Amount	SaleDate
1	Pen	10	100	2024-06-01
2	Notebook	5	500	2024-06-02
3	Pencil	20	200	2024-06-02

- Write a query to display all sales made after 1st June 2024.

- Write a query to find the total amount of all sales.

- Write a query to display the product name and quantity for sales where the quantity is greater than 10.

- Write a query to order the sales by `Amount` in descending order.

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3. Excel & Visualisation Practical:

You have the following data:

Month	Orders	Revenue
Jan	50	50000
Feb	65	60000
Mar	70	75000

- Create a suitable chart to compare both Orders and Revenue.

- List 2 key insights you can derive from the chart.

- Explain the importance of using slicers in dashboards.

- What is conditional formatting in Excel? Explain with one example.