Section A: Objective Questions (20 Marks)

Each question carries 2 marks.

1. What is **Business Intelligence**? How is it related to Data Analytics?

2. Which of the following is a Power BI data connectivity mode?
   a) DirectQuery
   b) StaticQuery
   c) InstantQuery
   d) RapidQuery

3. What command is used to modify existing data in a SQL table?

4. Name two features available in Power BI Service but not in Power BI Desktop.

5. Define a **Foreign Key** with an example.

6. What is the use of the **HAVING** clause in SQL?

7. Name any two performance optimisation techniques in Power BI reports.

8. What is the default data model relationship type in Power BI?

9. List any two advantages of using SQL over Excel for data handling.

10. Write the SQL command to create a table named `Customers` with columns `CustomerID` and `CustomerName`.

Section B: Short Answer Questions (40 Marks)

Answer any FIVE questions. Each question carries 8 marks.

1. Describe the steps to import data from a SQL Server database into Power BI.

2. Explain the difference between **Managed Relationships** and **Manual Relationships** in Power BI with examples.

3. Write SQL queries to perform the following:

    - Display the names of all products in a `Products` table.

    - Increase the price of all products by 5%.

4. Explain **Power Query Editor** in Power BI. List any four transformations you can apply in it.

5. What are **Bookmarks** in Power BI? How are they useful in report navigation?

6. Differentiate between **DELETE** and **TRUNCATE** commands in SQL.

7. List the steps to schedule a data refresh in Power BI Service.

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

Answer any TWO questions. Each question carries 20 marks.

1. Power BI Practical Scenario:
You have been given monthly profit and sales data for five Bangalore branches of a company.

- List four KPIs that can be created from this data.
- Suggest three types of charts suitable for displaying sales performance and profit margin comparison.
- Explain the use of **Drill Through pages** in Power BI with an example.
- How would you enable row-level security for this report?

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2. SQL Practical Problem:

Consider the following `Orders` table:

OrderID	CustomerID	OrderDate	Amount
1	101	2024-04-01	5000
2	102	2024-04-03	3000
3	103	2024-04-05	4000

Write SQL queries to:

- Display orders placed after 2nd April 2024.
- Find the total order amount for each customer.
- Add a new column `OrderStatus` to the `Orders` table.
- Delete the order where `OrderID` is 2.

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3. Bangalore Business Case Study:

A popular Bangalore café chain wants to monitor daily footfall and sales using Power BI.

- Explain three ways in which Power BI dashboards can improve business decisions.
- Discuss how integrating SQL databases with Power BI would be beneficial.
- List two Power BI visualisations suitable for tracking daily visitor trends and top-selling items.
- Suggest two types of interactive elements you would add to their dashboard for better usability.