



JAIPURIA INSTITUTE OF MANAGEMENT, NOIDA

PGDM / PGDM (M) / PGDM (SM)

FOURTH TRIMESTER (Batch 2024-26)

END TERM EXAMINATIONS, OCTOBER 2025

Course Name	Business Intelligence for Decision Making	Course Code	20823
Max. Time	2 hours	Max. Marks	40 MM

SET B (Group 2)

General Instructions:

- Create a separate folder to save all files (Power BI, SQL scripts, .txt, Excel).
- DO NOT DELETE ANY ROW or COLUMN** from any of the given datasets
- Save the Question Paper document as rollno_name.doc. You will UPLOAD only your Word document with all the answers. Answer each question and its subpart by fetching insights using SQL (Q1) or visualizations from Power BI(Q2), as mentioned in the paper.
- For Q1: Under each question given, paste a snapshot of your complete SQL query and the result set. Write your inference as asked in the paper.
- For Q2: Include a snapshot of your Power BI visual under the question. Clearly state your inference below the visual (this will be graded).
- Ensure all snapshots are clear and placed under the corresponding question.

Q1:(A to G) Save SQL Script:

- Add comments in your SQL script to indicate the question number and question text.
- Place each SQL query directly beneath its corresponding comment.

Q2(I to viii) Save Power BI:

- Create separate sheets inside Power BI for each question, labeling them with the question number.

Q1. Two excel files, Order and Product, are provided; All SQL queries should be written using the data from these files. Each part carries different marks. For questions that mention "explain," provide a brief business insight or recommendation based on your SQL query results.

SwiftBasket is a fast-growing e-commerce retailer operating across India, offering a wide variety of products such as tables, phones, copiers, and more. With a presence in multiple states and regions, SwiftBasket serves both individual and business customers. The company relies on SQL Server Management Studio (SSMS) to analyze its sales and profitability, aiming to optimize product offerings and regional strategies.

SwiftBasket maintains a comprehensive dataset covering the past year, with details on each transaction and product. The dataset includes the following columns: Product ID, Region, Category, Sub-Category, Product Name, Sales, Quantity, Discount, Profit, Shipping Cost, and Order Priority. **(20 marks)**

- A) Compare and contrast the profitability of the 'Critical' and 'High' order priorities. Determine which one demonstrates superior profitability. (3 marks)
- B) Which Apple products have the highest total sales? Explain what actions or strategies the company could take to further increase sales for its top-performing Apple products, or to boost sales for those Apple products with lower sales figures? (3 marks)
- C) In which region and category combination is the profit highest? (3 marks)
- D) Which sub-category receives the highest average discount? (3 marks)
- E) Identify the top three and bottom three performing products by profit for decision making on resource prioritization. (3 marks)
- F) What is the minimum and maximum quantity sold for each product? (2 marks)
- G) Identify which product is suitable for a bulk purchase promotion to encourage larger orders. The condition is that the product's maximum quantity is at least twice (or more) the minimum quantity. (3 marks)

Q2: Imagine you are working for an e-commerce company. You have a database containing the following columns: Date, Acquisition, State, Product, Price, Units, Revenue, Performance, Return, and Satisfaction (with values 1 for very low, 2 for low, and 3 for OK, 4 is good, 5 is very good). You are tasked with analyzing this data to gain insights into your business operations.

(20 marks)

- i) On which date did the company record the lowest total revenue? (3 marks)
- ii) Which acquisition channel (Ad, Organic, Returning) generates the least revenue overall? (3 marks)
- iii) Calculate each state's average customer satisfaction score and order them in descending order of satisfaction. (3 marks)
- iv) Identify the top three products with the highest revenue and those with the lowest for a specific customer acquisition type (Choose any acquisition Type) (Give two separate queries for the Top and Bottom three products. The query output must show only three products). (3 marks)
- v) The company wants to know from which acquisition customers are returning the most. (2 marks)
- vi) Using an appropriate visual, show the total revenue for each product, further broken down by acquisition channel (e.g., 'Ad', 'Organic', 'Returning'). The chart should clearly illustrate how each product contributes to overall revenue, and within each product, how different acquisition types increase or decrease the total. (3 marks)
- vii) Analyze what % of total transactions are returns (Yes) (3 marks)