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**JAIPURIA INSTITUTE OF MANAGEMENT, NOIDA**

**PGDM / PGDM (M) / PGDM (SM)**

**FOURTH TRIMESTER (Batch 2023-25)**

**END TERM EXAMINATIONS, SEPTEMBER 2024**

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

**SET B**

INSTRUCTIONS:

1. *Create a separate folder to save all files (Power BI, SQL scripts, .txt, Excel).*
2. ***DO NOT DELETE ANY ROW or COLUMN from any of the datasets***
3. *Save the Question Paper document as rollno\_name.doc. You will* ***UPLOAD only*** *your Word document with all the answers. Answer each question by fetching insights using SQL or visualizations from Power BI as asked in questions.*
4. *For* ***Q1****: Include a snapshot of your Power BI visual under each question. And then clearly state your insight and inference below the visual (this will be graded).*
5. *For* ***Q3****: Under each question, paste your SQL query and include a snapshot of the result set.*
6. *Ensure all snapshots are clear and placed under the corresponding question.*

**Save the SQL Script in the folder**

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

**Save Power BI .pbix file in the folder**

1. *Create separate sheets in Power BI for each question, labeling them with the part number.*

**Q1.** Zoom retail company has collected customer data from its point-of-sale system from two datasets (*zoom\_sales* and *loyalty*). The company wants to use these datasets to better understand their customers and improve their marketing and sales strategies. For example, they may want to identify their most loyal customers, target their marketing campaigns to specific customer segments, or offer discounts and promotions to customers who meet certain criteria. Using insights from **Powerbi**, **(2\*12=24 marks)**

1. Retrieve the total sales figure for each category using UPI payment and compare it with Cash payment. Identify and list the top 3 categories with the highest sales based on each of these payment methods. Which specific strategies would you recommend increasing UPI adoption among customers?
2. List the top three categories of products which students prefer.
3. Comment on the trend on average amount retired people spend in different years.
4. Calculate the total units sold for cosmetics by female students using Debit card payment in different quarter or years or months.
5. Using a pie chart to compare the Sales trends for each ‘profession.’
6. Which transportation mode shows the lowest number of units sold?
7. Which mode of transportation is preferred by individuals with a higher average spend?
8. Evaluate the impact of parking issues on the overall sales.
9. Explain the overview of Zoom's category sales performance. Which specific category appears to be underperforming?
10. Average age of male government job employee
11. Which mall is the most profitable mall based on total sales?
12. Which mall is most popular among people for purchasing clothing?

**Q2.** Imagine you are working in Zoom retail organization (mentioned in Q1). Write your insights as 4 bullet points that focus on stakeholders like the Government, Retail organizations, and shopping mall administration based on parking issues or financial literacy among citizens. **(1 marks)**

**Q3.** Zoom retail organization manager needs to know some instant information and how his database manager would help him to provide instant information using **SQL query in SSMS**.

**(5\*3=15 marks)**

1. How many male customers, over the age of 23 are in our ‘Gold’ loyalty program?
2. Compare total enrollment in all three loyalty programs, sorted in descending order by the number of enrollments. What targeted strategies can we implement to boost enrollments in the loyalty programs that are currently underperforming?
3. How many retired people use their car to do shopping in the mall?
4. How many students visit the mall by Metro?
5. What is the total amount spent using debit cards each month? (Please use the MONTH function to extract the month from the date). How can we leverage this data to enhance our marketing strategies or customer engagement initiatives?