

# **DELHI SCHOOL OF BUSINESS**

By Vivekananda Institute of Professional Studies - TC

**PGDM / PGDM (FINTECH) Program**

**TRIMESTER - V (Batch: 2023-25)**

**END-TERM EXAMINATION, DECEMBER 2024**

Course Name	Research Tools & Data Visualization	Course Code	RTDV
Duration	Three Hours	Max. Marks	60

## **Instructions:**

1. Each student will create 2 files as output (pbix and docx) with your name, surname and section for submission. The password for all Excel files is PRTG796.
2. All the results and inferences need to be written in your answer sheet, else they will not be awarded marks.

**Q.1** Use the Shopping Mart file and upload both sheets in Power BI(PBI). Answer each of the following questions on a different worksheet in PBI

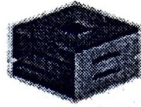
A) Use appropriate charts and comment on the Year wise Sales & Profit for the Company.

B) To check the performance of each country in terms of Sales & Profit, use the Country as a slicer. Show & Comment on the Year wise Sales and Profit as well as Cumulative Figures. Comment on the trends for Portugal, Spain, Sweden and UK.

C) One would like to check the performance for the Year 2014 in detail. Make a slicer for country. Through appropriate charts show the Sales & Profit at an overall level, category wise and Segment wise.

Also, show the contribution to Profit in terms of Percentage Product category wise and Segment wise. Inferences for 5 countries to be written in the answer sheet.

(5+ 5 +10 Marks) CO1



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**Q.2** Use the Candy Bars file. Perform the K-Means clustering and using the variables calories, total fat ..... protein, create a 3-cluster solution. Report and interpret the results.

Write a short note on Clustering and its applications.

(7 + 3 Marks) CO2

**Q.3** Use the Sneakers data. Carry out a Factor analysis using the variables – Comfort, Style and Durability & name the Factors, explaining all the steps. Write a short note on Factor Analysis and its applications.

(7 + 3 Marks) CO2

**Q.4** Use the Iris file. Perform Discriminant Analysis using the variables for sepal and petal lengths and widths. Identify the variables which discriminate between the 3 species – Setosa, versicolor and virginica. Write a short note on Discriminant Analysis and its applications

(7 + 3 Marks) CO2

**Q.5** The contenders of the recently concluded US Presidential elections were Kamala Harris, Donald Trump, Jill Stein, Cornel West, Chase Oliver and Claudia de la Cruz. Attached is the file which contains tweets on the platform X. Use the Tweet Text to create a Word Cloud and perform the Sentiment Analysis. Note your inferences on the answer sheet. The Word cloud needs to be copied onto a Word document which will contain your name, surname and section.

(5 + 5 Marks) CO3