To improve the effectiveness of the sales campaign, you decide to analyze the customer data. You use Tableau to create an interactive dashboard that shows the demographics of the customers, including their age, gender, and location. The dashboard also includes a heat map that shows the most popular products by region.

Questions:

- (a) Create a plan for utilizing data visualization tools, such as Excel and Tableau, to enhance the effectiveness of sales performance analysis. Discuss the benefits and limitations of these tools and provide recommendations for mitigating any potential limitations.
- (b) Develop a strategy for utilizing data visualization techniques, such as bar charts and heat maps, to identify trends and patterns in customer data, with the goal of improving the performance of sales campaigns. Evaluate the effectiveness of these techniques and provide recommendations for improvement. (CO5)

H Roll No.

MB-402(BA1)

M. B. A. (FOURTH SEMESTER) MID SEMESTER EXAMINATION, May, 2023

DATA VISUALIZATION FOR MANAGER

Time: 1½ Hours

Maximum Marks: 50

- Note: (i) This question paper contain two Sections—Section A and Section B.
 - (ii) Both sections are compulsory.
 - (iii) Answer any two sub-questions among (a), (b) and (c) in each main question of Section A.
 - (iv) Section B consisting of case study is compulsory. Section B is of 20 marks.

Section-A

1. (a) Define data visualization and explain its importance. Discuss the significance of data literacy in the context of data visualization. (CO1)

- (b) Discuss the importance of color hue in (CO2) visual perception.
- different (c) Compare and contrast visualization types that can be used for a given set of data, taking into account the characteristics of the data, audience, and purpose of the visualization. Analyze the of each limitations benefits and visualization type and recommend the most suitable option for effectively (CO4) presenting the data.
- 2. (a) List the features and functionalities of Tableau that make it an exceptional tool for creating interactive visualizations.

(CO1)

- (b) Explain the purpose of color coding in data visualization and provide an example of a chart or graph where color coding is used effectively to highlight key data (CO2) points.
- Compare and contrast a line chart and a bar chart, highlighting their differences in terms of data presentation and usage.

(CO3)

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- 3. (a) Evaluate the ethical implications of a particular data visualization, identifying and analyzing its potential impact on different groups of people. (CO1)
 - (b) Analyze the strengths and weaknesses of various tools and techniques for creating visualizations. and provide recommendations for improvement. (CO3)
 - (c) Explain the Shaffer 4 C's of Data Visualization, and assess how they relate to effective communication. (CO4)
- 4. Company X, a small business selling handmade crafts online, wants to analyze the performance of their recent sales campaign. As a marketing analyst, you are tasked with visualizing the key metrics to understand the effectiveness of the campaign. Using Excel, you create a bar chart that shows the total number of sales and the revenue generated by the campaign.

You also add a line chart that shows the trend in sales overtime, allowing you to identify any significant changes in sales volume or revenue.