GALGOTIAS UNIVERSITY

ADMISSION NUMBER												

School of Business

Master of Business Administration MBA Dual Specialization
Semester End Examination - May 2024

Duration : 180 Minutes
Max Marks : 100

Sem IV - MBBA6012 - Data Visualization

General Instructions
Answer to the specific question asked
Draw neat, labelled diagrams wherever necessary
Approved data hand books are allowed subject to verification by the Invigilator

1) Apply visualization process for quality control for the given dataset in an automobile manufacturing unit. Illustrate how to calculate count of defect type and defect severity in the expected visuals. K3 (6)

Timestamp	Production Line	Product Type	Defect Type	Defect Severity
2024-03-15 08:00:00	Line 1	Sedan	Paint Defect	Minor
2024-03-15 08:05:00	Line 2	SUV	Engine Defect	Major
2024-03-15 08:10:00	Line 1	Truck	Suspension	Critical
2024-03-15 08:15:00	Line 3	Sedan	Paint Defect	Minor
2024-03-15 08:20:00	Line 2	Sedan	Paint Defect	Minor
2024-03-15 08:25:00	Line 3	SUV	Electronics	Major
2024-03-15 08:30:00	Line 1	Sedan	Engine Defect	Major
2024-03-15 08:35:00	Line 2	Truck	Paint Defect	Minor
2024-03-15 08:40:00	Line 3	Sedan	Suspension	Critical
2024-03-15 08:45:00	Line 1	SUV	Electronics	Major

2) In fostering a Data discovery culture, an e-commerce company emphasizes proactive exploration and experimentation with data. Differentiate the exptected outcomes of practising the discovery cuture for this company that is seeking to find new ways to generate sales K4 (8)

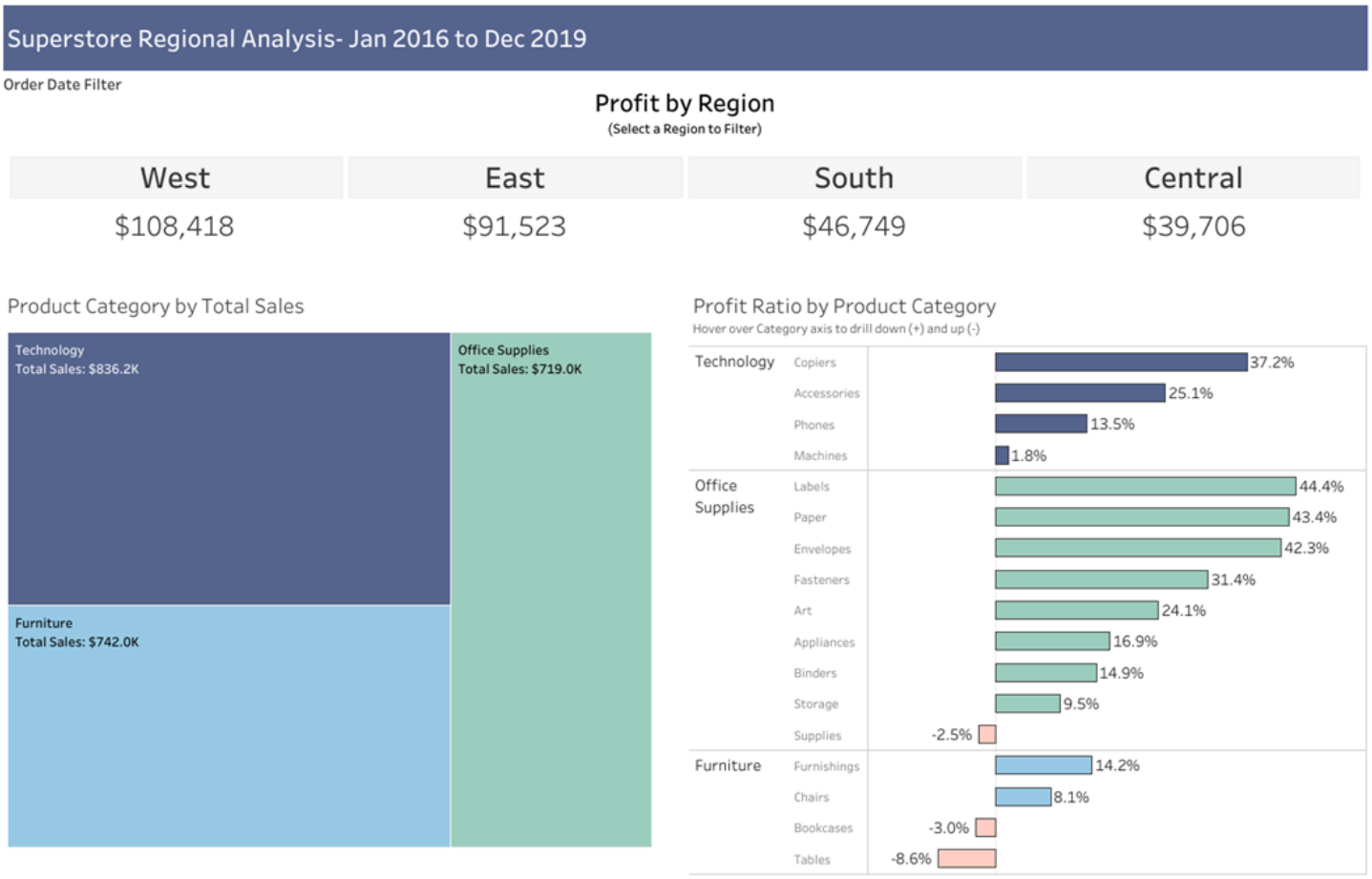
3) Compare the distribution and publishing processes of dashboard in Tableau. List down the steps to perform them. K4 (8)

4) Compare the key benefits of utilising data visualisation software Tableau and PowerBI in industry. K4 (4)

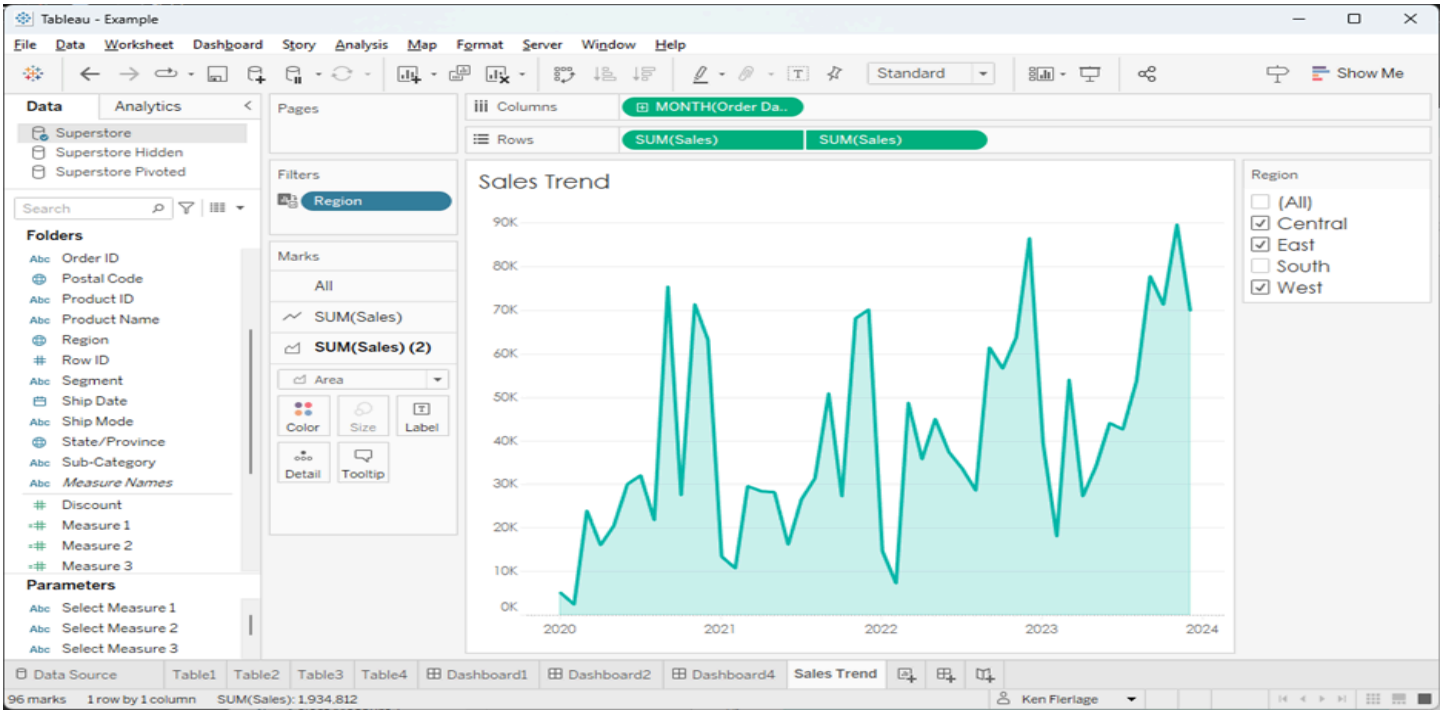
5) The following table represents sales figures of an organisation for the last seven years. Apply an appropriate graph for plotting the past sales figure to identify the trend and pattern. Write steps to perform it using Tableau. K3 (9)

Year	Sales (Lakh)
2001	3.8
2002	4.2
2003	5.6
2004	3.1
2005	4.8
2006	5.4
2007	2.3

6) You are working as a Data Analyst with the Superstore company. The company has provided you three years data on sales and for which the following charts were drawn. Compare the sales across regions and products and provide your insights for managerial decision making. K5 (10)



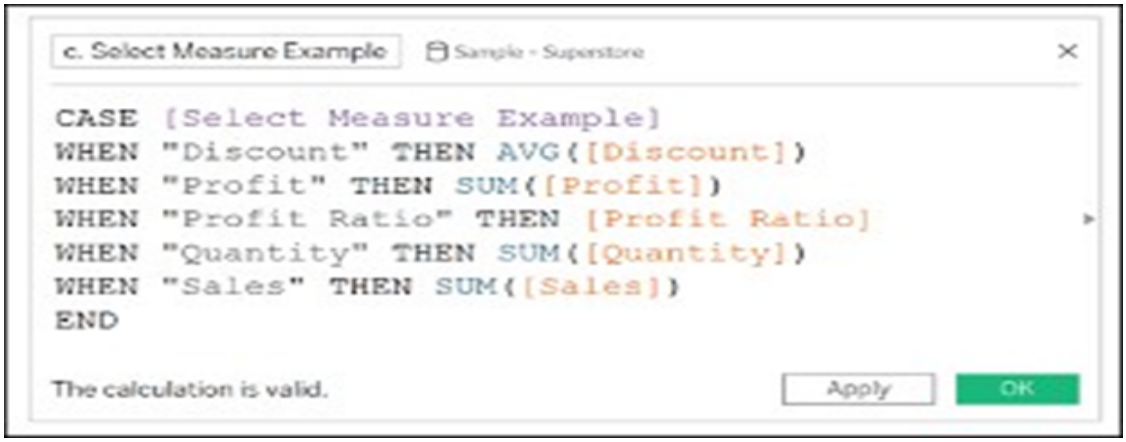
7) You are a data analyst working for a multinational retail corporation, tasked with analyzing sales performance across various regions using the Tableau Superstore dataset. The company operates numerous superstores worldwide, and the executive team is keen to understand the sales trends to inform strategic decision-making. Assess the sales trend in superstores portrayed in the provided chart using the Tableau Superstore dataset. Explain how the inclusion of the 'Region' filter enhances interpretation and insights. K5 (10)



8) You are given the task of visualizing an electronics manufacturing company's sales performance over the past three years and required to incorporating quarterly sales figures for five different product categories. Make your own table taking any five products (as suggested in the image below) followed by drawing of bar charts and line charts. Interpret the results. Recomend the actions for next quarter. K5 (15)

Quarter	Product Category	Q1 Sales	Q2 Sales	Q3 Sales	Q4 Sales
Q1 2021	Laptops	$500,000	$550,000	$600,000	$520,000
Q1 2021	Smartphones	$400,000	$420,000	$450,000	$380,000
Q1 2021	Tablets	$300,000	$320,000	$280,000	$310,000
Q1 2021	Wearables	$200,000	$180,000	$220,000	$190,000
Q1 2021	Accessories	$150,000	$160,000	$170,000	$140,000
Q2 2021	Laptops	$560,000	$580,000	$620,000	$540,000
Q2 2021	Smartphones	$430,000	$450,000	$480,000	$410,000
Q2 2021	Tablets	$320,000	$340,000	$300,000	$330,000
Q2 2021	Wearables	$220,000	$200,000	$240,000	$210,000
Q2 2021	Accessories	$170,000	$180,000	$190,000	$160,000
...	...	...	...	...	...

9) As an operations manager at Superstore, you are responsible for analyzing sales data using Tableau and interpreting the results. During a meeting with management, you have been tasked with explaining the interpretability of additional measures calculated by your team members within the Tableau environment. Discuss how the clarity and relevance of the results derived from these calculated fields within the Tableau environment align with the operational objectives of Superstore. K6 (18)



10) As a Data Analyst utilizing Tableau within the Superstore company, you are tasked with developing dashboards and extracting insights. With the data provided, you've created a PROFIT dashboard. Discuss on the findings from the chart to enable management to draw actionable insights. K6 (12)