Trim: Jan – Mar 24			
Maximum Marks:50 Examination: ETE Exam Date: 20.4.24 Duration: 2.30 PM TO 5.30 PM			
Programme code: **Programme: 2022-25**		**Class:** SY	**Trimester:** VI
College: K. J. Somaiya Institute of Management		**Name of the department/Section/Center:** DATA SCIENCE	
Course Code: 217P10C622		**Name of the Course: DATA VISUALIZATION USING TABLEAU**	

Instructions:

1. This is a practical examination to be conducted in the Institute's Computer Lab.

2.All questions to be attempted using Tableau software, on the Lab desktop. No personal laptops or other personal electronic gadgets can be used.

3. All questions to be attempted using dataset Superstore.xlsx. The location of this dataset will be shared by the lab assistant.

4.The screen shots answers to the questions through Tableau software should be pasted in a Word Document, with your Roll number, as file name.

5.The Question number, visualizations and the insights should be typed clearly and the document to be saved in the shared drive at the end of Exam.

6.The location of the shared drive for uploading Answer file will be shared by the lab assistant.

Question No.	ATTEMPT ALL QUESTIONS:	Max. Marks
Q1.	Attempt any 4 Questions using the dataset. Share your insights with each answer.:	20
A.	Show appropriate chart to get insights between Monthly Profit and subcategory of Products.	
B.	Attempt Dual axis visualization for Sales, Profit and Subcategory. Show profit in descending order and list action items for profit increments.	
C.	Design stacked bar chart for Category and Sales. Show % breakup on each bar chart.	
D.	Design exponential trend line for displaying Sales and Monthly Order date. Create a Yearly Forecast in a new worksheet.	
E.	Using table Calculation menu, design visualization for Quarter-to-quarter difference in sales revenue.	
Q2.	Attempt any 2 Questions using the dataset. Share your insights with each answer.:	20
A.	Design a Story to incorporate the following points and give relevant insights:	
B.	1. Some items have very good sales- Sales in various sub categories.	
C.	2. And some states are very good for us too- Sales in various states.	
	3. Good sales do not always mean good profits. - Profits in various subcategories	
	4. Some states are not very profitable.	
	Design an interactive Dashboard to incorporate the relevant charts and give insights:	
	1. A bar chart showing least profitable 30 customers, with Region wise selection.	
	2. State wise subcategory wise sales with Region filter. Use map chart	
	3. Category and Subcategory wise profits with Category selection through dropdown.	
	Design an interactive Dashboard to incorporate the following charts and give relevant insights:	
	1. Using side by side chart for Profit and sales, category wise, show filter for Monthly order date using a dropdown selection.	
	2. Using bar chart show visualization for City wise, Quantity wise sales. Use Region as dropdown selection filter. Which are the Top 5 cities for quantity wise sales?	
Q3.	Attempt any 2 Questions using the dataset. Share your insights with each answer.:	10
A.	Design a Calculated Field Profit ratio. (Profit/ Sales). Create the visualization with customer segment and Profit Ratio.	
B.	Analyze the visualization and answer the following questions:	
C.	Q1. Which segment is the Profit ratio the highest and which one the lowest?	
	Q2. By what % is the Consumer Profit Ratio lower than Home Office segment? What could be the reasons?	
	Create a Parameter Inflation Percentage, Minimum value is 1%, 8% is maximum, varying in steps of 1%. Due to inflation, projected profit of the	

company will reduce.

Projected Profit = Profit x (1-Inflation Percentage).

Show Subcategory wise Profit and Projected Profit bar graph. Analyse variation in Profit at 6% Inflation percentage growth.

Create a Parameter – New AC Launch Date. Show the day wise sales variation from this day which was 10.2.2021. Have two different colours for pre and post day sales on 10.2.2021. Use Point annotations to explain the launch of new AC model on this date.