**JAIPURIA INSTITUTE OF MANAGEMENT, INDORE**

**PGDM**

**FIFTH TRIMESTER (Batch 2019-21)**

**END TERM EXAMINATION, JAN-2021**

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| Course Name | **DATA VISUALIZATION** | Course Code | **IT 501** |
| Max. Time | **2 hours** | Max. Marks | **40** |

**INSTRUCTIONS:**

1. Attempt all the questions using Tableau software only.
2. Use the dataset “Global Superstore 2016” provided along with this paper.
3. Worksheets are to be named as per the question number in Part A
4. Part B: Give appropriate name to the Dashboard.
5. Finally, upload the tableau workbook on Moodle with the file name “DV-<your Roll No>” with the extension .twbx
6. Make sure to apply the principles of effective Data Visualization and other tableau concepts such as formatting, tooltips, annotations etc. while creating views and due weightage would be given for the same.

**PART A – Max. 24 Marks**

**Note: Attempt any 4 Questions**

Consider that you are a President (Sales) of USCA Market (apply appropriate filter at data source level). Create visualization as per the requirements stated in each question

**Case 1: (Max 6 Marks -2+3+1)**

1. Show profit by state within east and central region.
2. Use the color-blind safe color palette to show the sum of profit less than $10000.
3. Which state is having the least profit? **– Mention it in caption on the worksheet.**

**Case 2: (6 Marks- 2+2+2)**

1. Show relationship between the two measures (Average Discount and Sum of sales) for year 2015 for various subcategories of the products
2. Add average line to both the measures and label it properly (Avg: <value>).
3. How many subcategories are doing well in terms of higher than average sales even if average discount is less? Name their subcategory and category. **Mention it in caption on the worksheet.**

**Case 3: (6 Marks – 2+2+2)**

1. Show monthly (continuous) sales for east and south regions.
2. Create a reference line in sales using a parameter (named as “sales target”) as the input.
3. Set the value of the parameter to $16000 and list the months in south regions where sales exceed the target. **Mention it in caption on the worksheet.**

**Case 4: (6 Marks – 2+3+1)**

1. Show a cross tab to show sales for various regions across category and subcategory
2. Add sub-totals and use quick table calculations to show the percentage of total for each category.
3. What is the percentage of total sales for table in Furniture category in Central region? **Mention it in caption on the worksheet.**

**Case 5: (6 Marks – 1+3+2)**

1. Create a suitable chart to show the profits earned by the subcategory of products.
2. Classify the product subcategory as ‘ High” if the sum of the profit is greater than $40,000 and above, “Moderate” if between 20000 to 40000 else “Low”. Add one more category as “Loss Making” whereas profit is negative.
3. Using appropriate colors (Green, blue, grey and orange) to show the newer classification. Make necessary changes in legends to use it as a highlighter.

**Case 6: (6 Marks – 3+2+1)**

1. Use appropriate graph (eg. Tree Map) to show sales across different regions which is further divided by category.
2. Show each region with different color and marks be labeled by region, category and sales.
3. Which is the least selling category in Eastern Region? **Mention it in caption on the worksheet.**

**Part B – Max. 16 Marks**

**Now, design a dashboard for VP(Sales) in central region (apply region filter to each worksheet)**

**Steps:**

**(a) First, create the following views: (7 Marks – 2+3+2)**

1. Percentage Sales by segment (in pie chart)
2. Sales(bars) and profit(use color) by states (horizontal bars)
3. Relationship between Sales and profit in various sub-categories of products

**(b) Create a new dashboard to fit any screen size titled as “Sales Dashboard”. Do the following** (**9 Marks – 4 + 4 + 1**)

1. Use all three views to display the performance of sales to VP(Sales) in central region
2. Add necessary interactivity (such as filters, highlighter etc.) to the dashboard
3. In the end, hide all the views used in the dashboard