**1. Basics:**

1. What is the difference between Discrete and Continuous Data?

**Ans:** There are two types of data roles in Tableau – discrete and continuous dimension.

* Discrete means "individually separate and distinct.". Blue measures and dimensions are discrete. Discrete values are treated as finite. Generally, discrete fields add headers to the view. Ex: number of threads in a sheet, customer name or row ID or State. Discrete values are shown as blue pills on the shelves and blue icons in the data window.
* Continuous means "forming an unbroken whole, without interruption". Green measures and dimensions are continuous. Continuous field values are treated as an infinite range. Generally, continuous fields add axes to the view Ex: unit price, time and profit or order quantity. Continuous variables behave in a similar way in that they can take on any value. Continuous values are shown as green pills.

1. What is the criteria for data to land into dimensions and measures?

**Ans:** Dimensions contain qualitative values (such as names, dates, or geographical data). You can use dimensions to categorize, segment, and reveal the details in your data. Dimensions affect the level of detail in the view. Measures contain numeric, quantitative values that you can measure.

1. What is Metadata, where is it present in the workbook?

**Ans:** The Metadata API enables you to see relationships between the content and asset that you're evaluating with other items on your Tableau Cloud site or Tableau Server.

1. What happens when you aggregate or disaggregate the Data?

**Ans:** To aggregate data is to compile and summarize data; to disaggregate data is to break down aggregated data into component parts or smaller units of data.

1. You are working on a dataset the client adds in more data to the dataset. What happens to the Visualization that you had created? Give the explanation for both Live and Extracted data.

* **Ans:** Live data refers to a data source which contains direct connections to the real-time data. Live connections can be used at a place where the data is real-time data which when get updated, so our visualization also gets updated automatically. Live connections are used especially in less complex visualizations with small data sets, filters, calculations etc. Live connections get refreshed when there is a change in the original data source. A Live connection in Tableau basically means that Tableau is querying and reading directly from your database. Extract data files are the local copy of the data source that you can use to make the view. This can be used at a place where the view can be created by a subset of the data source. Extracts are much faster for visualization. Extracts are used especially in more complex visualizations with large datasets, filters calculations etc.

What are the file extensions in Tableau and how each one is different?

**Ans:** We can save our work using several different Tableau specific file types: workbooks, bookmarks, packaged data files, data extracts, and data connection files.

* **Workbooks (.twb)** – Tableau workbook files have the .twb file extension. Workbooks hold one or more worksheets, plus zero or more dashboards and stories.
* **Packaged Workbooks (.twbx)** – Tableau packaged workbooks have the .twbx file extension. A packaged workbook is a single zip file that contains a workbook along with any supporting local file data and background images. This format is the best way to package your work for sharing with others who don’t have access to the original data
* **Packaged Data Source (.tdsx)** – Tableau packaged data source files have the .tdsx file extension. A packaged data source is a zip file that contains the data source file (.tds) described above as well as any local file data such as extract files (.hyper or .tde), text files, Excel files, Access files, and local cube files. Use this format to create a single file that you can then share with others who may not have access to the original data stored locally on your computer.
* **Extract (.hyper or .tde)** – Depending on the version the extract was created in, Tableau extract files can have either the .hyper or .tde file extension. Extract files are a local copy of a subset or entire data set that you can use to share data with others, when you need to work offline, and improve performance.
* **Bookmarks (.tbm)** – Tableau bookmark files have the .tbm file extension. Bookmarks contain a single worksheet and are an easy way to quickly share your work.
* **Data Source (.tds)** – Tableau data source files have the .tds file extension. Data source files are shortcuts for quickly connecting to the original data that you use often. Data source files do not contain the actual data but rather the information necessary to connect to the actual data as well as any modifications you've made on top of the actual data such as changing default properties, creating calculated fields, adding groups, and so on.

**2. Text Table, Highlight Tables, Heat Maps, Tree Map:**

1. Create a text table for the Avg (Sales) for each subcategory using Sample Superstore? List which Sub Category is got Avg (Sale) more than $1000? - **Sample Superstore**
2. Create a Heat Table for the order date and Region against the Sub Category based in Count of Sales with two colours diverging that is distinguished by Sum of Profit - **Sample Superstore**
3. Create a Highlight table for the States for the Order Date Year whose highlighting is done based on Sum of profits - **Sample Superstore**
4. Which customer is having maximum of sales in the year 2012? - **Global Superstore**
5. How much is profit share less in Pennsylvania when compared to New York? - **Sample Superstore**

**Ans**. 89,599

1. Check for the pane wise percentages of sales with Category, Sub- Category and quarter wise order date, also check for the Row wise grand totals and Column wise grand totals. - **Sample Superstore**

**3. Filled Maps, Symbol Maps:**

1. Use Global Superstore. Check Which Western Country in EMEA region has least profit percentage.
2. Use **“Sample Superstore. Xls”,** which state shares boarders only profit for tables
3. Use **“Sample Superstore. Xls”,** which state has no data for Profits for Office Supplies

**Ans: Wyoming**

**4. Bar Charts, Stacked, Side by Side:**

1. Which Customer name & Year is having all the Product Categories sum of profit less than over-all Average profit? - **Sample Superstore**
2. What is the Maximum of Life Expectancy Female for the region Africa & year 2012? - **World Indicators**

Ans: 78

1. What is the share of the top 20 customers based on the sales amount compared to the customers based on profit amounts - **Sample Superstore**

**5. Line Graphs, Dual Line, dual axis:**

1. How can you show two different graphs in one view? - **Global Superstore**
2. Which Region is having Sum of Energy Usage>1000000 and sum of Population 65+>10? - **World Indicators**

Ans: Asia, Africa, Europe, America

**6. Trendlines, Cluster, scatter Plot, boxplot, Word Cloud (Packed Bubbles), Histogram:**

1. Draw a trend line for profit as a linear function of sales only for product technology? - **Sample Superstore**
2. Create a histogram showing the number of Sales using Sales Bins of $1000. Which bins have profit ratios of more than 25%? - **Global Superstore**
3. Using “**Sample Superstore”**, use order sheet create a histogram showing the number of orders using sales bins of $1000.
4. Using **“Global Superstore**”, use the orders sheet, build a scatter plot showing the sum of sales on the x-axis and sum of profits on the y axis for all products (Product name). What is the equation for linear regression for products in Technology?
5. Use **“World Indicators”.**  Take Health Exp% GDP, Health Exp/Capita, Life Expectancy Male, Female. What are the variables that are considered to create the clusters by default?

**7. Calculate Fields, Quick table calculations, LOD:**

1. How do you create a profit ratio using the Calculated fields?

Ans: SUM([Profit])/SUM([Sales]), we’ll use this formula in Calculated Fields.

1. Global Superstore data set; Region wise year wise sales are ranked. What is the rank of some country when compared to last year?
2. What percent of total profits do the top 10 customers by Sales represent? - **Sample Superstore**
3. Find the customer with the lowest overall profit. What is his/her profit ratio? - **Sample Superstore**
4. Ranking States based on Sales what is the rank of state which has sales crossed $20000. - **Sample Superstore**
5. What is the percent of orders which took more than 7 days on an average to deliver.
6. Use **“World Indicators”.** Without using table calculations what is the proper syntax to build a calculated field which will display overall total GDP on this view?

**8. Filters:**

1. What are the different types of filters and give their working order?

**Ans: There are basically, 6 types of filters and by order of operation they are:**

**1.Extract Filter**

**2.Data Source Filter**

**3.Context Filter**

**4.Dimension Filter**

**5.Measure Filter**

**6.Table Calculation Filter**

1. Create a list of Top 10 Products based on Profits whose sale value is more than $5000? - **Global Superstore**
2. Create a Chart with Customer Name and Profit and check for the Sale Value for top 15 Customers? - **Global Superstore**
3. Apply filter to all the worksheet, filter by year 2011, then find the sum(sales) for the highest subcategory.- **Global Superstore**
4. What is the name of 375th top most customer by sum of profits - **Sample Superstore**

**9. Dashboards & story:**

1. What are the different device type preview that Dashboards can use?

Ans: Desktop, Tablet And Phone

1. Create a dashboard using World Indicators showing the all the Actions that can be performed in Tableau.

**10. Time Series:**

1. Use Order date and drill down the information for Quarter and Month level separately and show the line Chart in a Continuous Form- **Global Superstore**

**11. Sets, Parameters, Groups:**

1. Parameters can be used in?

**Ans:** A parameter is a workbook variable such as a number, date, or string that can replace a constant value in a calculation, filter, or reference line.

1. What are the different ways to create a Parameter?

**Ans:** Steps to Create a Parameter in Tableau.

Follow the steps given is to create a parameter in Tableau.

Step 1: To create a parameter, click on the drop-down arrow present on the top right corner of the Data pane. Select Create Parameter option from the drop-down menu.

Step 2: A Create Parameter window will open. From this window, you can give a name to the parameter, select its data type, set current value, allowable values, etc.

Step 3: You can also select a display format for the parameter that you are creating. The formats available are Number, Currency, Scientific, Percentage, Automatic, Custom, etc.

Step 4: From the next option of Allowable values, you will find three options; All, List and Range. This means that we can either select all the values within a field and create a parameter. Or we can have a list of values of our choice from the field or we can set a range within which we would like to have values in the parameter.

Step 5: In this way, the newly created parameter “Top 10 brands” starts showing in the Parameters section given at the bottom left.

**12. Forecast:**

1. You are provided with the dataset for the past 10yrs. How can you forecast the data for next 4 years, Quarter wise.

**Ans:** First, we have to convert past year of data into Quarter wise and after that we’ll forecast the data for next 4 years.

1. Use **“Sample Superstore”.** What is the Sales Forecast Estimate for the month of September 2018?

**13. Pie Chart:**

1. Create a Pie Chart using regions and sum of sales, sort the pie in ascending order, increase the size in the view and label them with Count of Quantity and Sum of Profits- **Sample superstore**