1. **Basics:**

**1.1 - What is the difference between Discrete and Continuous Data?**

1. Discrete data contains finite numeric, separable values and is countable. It can be represented by whole number only. It can be plotted as bar plot.
2. Continuous data contains many numeric values within range and are measurable. Continuous data can be represented using both integer and float values. We can plot histogram for continuous dataset.

**1.2 - What are the criteria for data to land into dimensions and measures?**

The data to land into dimension has to be in categorical format. It adds more details to the graph. We can’t perform any arithmetic operations on dimensions, whereas for the measures, the data has to be in numeric format. It gives the actual value of the datapoint with respect with the dimension which is dragged on the column/row shelf. We can perform arithmetic operations on measures. By default tableau considers the aggregate value for the measures.

**1.3 - What is Metadata, where is it present in the workbook?**

Metadata means the data about data. In other words in a single database, we can have multiple data sheets, those data sheets/tables are called metadata.

When we connect to a data source, the multiple data sheets/tables in that data source will get displayed on pane. Those tables are the metadata. We can drag the desired table to worksheet.

**1.4 - What happens when you aggregate or disaggregate the Data?**

When we aggregate the data, we get the average or sum values of the data for all the rows, whereas if we disaggregate the data, we get the values for each row for every attributes selected.

**1.5 - 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.**

If the dataset is taken in form of files and not taken directly from a real time underlying data server, then it won’t affect the visualization that has been already created even if client adds more data to the files or dataset.

-Live Data: It is obtained using live connection to the data server. Whatever the changes made on main live data source like adding data or deleting the data will reflect same on live data.

-Extracted Data: Extracted data are the dataframes taken from the data source. Any changes made on original data will not reflect on the extracted data.

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

1. Tableau Workbook (.twb):

It contains the information about the worksheet, dashboards, fields, aggregation etc. It can be created for live connections only and can be accessible to the people having access to same live connection. It also contains metadata about live connection but not actual data used in workbook.

1. Tableau Package Workbook (.twbx):

It’s same as Tableau workbook but only difference is that it contains the extracted data in form of (.tde) so even if the other person using this book doesn’t have access to live connection, they can see and use the dataset used for the same worksheet. It also contains the attached images and customised coding.

1. Tableau data source (.tds):

It contains all the information required to set up a data connection along with metadata of other specific modifications made by the user but not the actual data.

1. Tableau Packaged Data Source (.tdsx):

It contains all the information about data connection along with extracted data.

1. Tableau Data Extract (.tde):

It contains the extracted data from the source only and not other information.

**Q. 5 - How can you show two different graphs in one view?**

We can show two different graphs having different measures using dual axis. We can plot line graph, stacked bar graph, line-bar graph, maps etc using dual axis.

**Q. 7 - How do you create a profit ratio using the calculated fields?**

By applying the formula “SUM [PROFIT] / SUM [SALES]” we can calculate profit ratio.

**Q. 8- 1: What are the different types of filters and give their working order?**

1. Extract Filter: It is used to see the limited no. of (extracted) rows in the data.
2. Context Filter: When we want to apply the filter limited to current sheet only, that time context filter is used.
3. Dimension filter: This filter is used to filter out the dimensional field. You can select the dimensions as per requirement by clicking in the checkbox in filter window.
4. Measure Filters: It is used to filter the measure values by using different aggregated functions like SUM, AVG, STANDARD DEVIATION etc. and the desired range of values.

Data source filters: Data Source Filters reduce the amount of data being fed into Tableau and restrict what data the viewer sees.

**Q. 9 - What is the different device type preview that Dashboards can use?**

Tableau dashboards have different layouts for many ranges of screen sizes that can optimize the preview accordingly and it includes phone, tablets and desktop.

**Q. 11- 1: Parameters can be used in?**

Parameters allow you to come up with scenarios or options that are not available in your data and create these values to put into your visualization. Parameters can be used in filters, to calculate the fields, LODs, reference lines etc.

**Q. 11- 2: What are the different ways to create a Parameter?**

1. In the Data pane, click the drop-down arrow in the upper right corner and select Create Parameter.
2. To create a parameter, I like to right-click in any blank space in the Data pane and click “Create Parameter

**Q. 12- 1: You are provided with the dataset for the past 10yrs. How can you forecast the data for next 4 years, Quarter wise?**

To create a forecast for next for the four years for given past data, follow the steps:

1. Take the date dimension on column shelf and change it to continuous – quarterwise.
2. Take the desired measure (like profit/sales) on row shelf.
3. You will get a line graph on canvas and if you didn’t get, go to show me and choose line graph.
4. Now, right click on the line -> Forecast -> Show forecast.
5. Again right click on forecast -> forecast options.
6. Now fill in the desired options given on the popped up window. Here, we want forecast for next 4 years, so choose exact and change the year to 4.
7. Now for forecast model, you can choose anyone from the gives option. Here in custom option, you can try a combination of different trends and submit it by clicking ok.
8. You will get a forecast for next 4 years quarter wise.
9. If you want to check how good your forecasting model is, right click on forecasting line -> Describe forecast -> Model -> Quality Metrics -> MASE.
10. As less the MASE, as good the forecasting model.