## 1.What exactly is the difference between descriptive and inferential statistics?

**Descriptive statistics**:- Descriptive statistics is a branch of statistics which is concerned with describing the population under study. It organizes the present data in a meaningful manner.

It uses charts,graphs and tables to describe the situation. It explains the data, which is already known, to summarize the sample.

**Inferential statistics:-**  Inferential statistics is a branch of statistics that focuses on drawing conclusions about the population, on the basis of sample analysis and observation. It compares ,tests and predicts the data.

2.I'm not sure what is the difference between a sample and a population?

**Population:-** A population is the entire group that you want to draw conclusions about. A population doesn’t always refer to people. I can mean a group containing elements of anything you want to study, such as objects, events,organizations,countries, species,organisms,etc.

**Sample:-** A sample is the specific group that you will collect data from. The size of the sample is always less than the total size of the population

3.What distinguishes descriptive statistics from other types of statistics?

Descriptive statistics focus on describing the visible characteristics of the dataset.Meanwhile, inferential statistics focus on making predictions or generalistions about a larger dataset,based on a sample of theose data.

4.What is the difference between quantitative and qualitative data?

**Quantitative data:-** Quantitative data is defined as the value of data in the form of counts or numbers where each data-set has an unique numerical value associated with it. This data is any quantifiable information that can be used for mathematical calculationas and statistical analysis,such that real life decisions can be made based on mathematical derivations.

Quantitative data is used to answer questions such as how many?,how much?,how often?.This data can be verified and can also be conveniently evaluated using mathematical techniques.

**Qualitative data:-**  Qualitative data is defined as the data set that approximates and characterizez. Qualitative data can be observed and recorded. This data type is non-numerical in nature. This type of data is colleccted through methods of observations,one to one interviews,conducting focus groups,etc.,

Qualitative data in statistics ia also known as categorical data. Data that can be arranged categorically based on the attributes and properties of a thing or a phenomenon.

5. What is the definition of a percentile?

The word “percentile” is usually indicared that a certain percentage falls below that percentile. For example ,if you score in the 50th percentile,then 50%of test takers are below your score.

Defination:- The nth percentile is the lowest score that is greater than a certain percentage “n” of the scores.