5.Write down 10 differences between Descriptive statistics and inferential Statistics.

Descriptive statistics	Inferential Statistics
Descriptive Statistics describes or summarizes the data.	Inferential statistics makes inferences or conclusions about the population based on the sample.
Descriptive Statistics helps in organizing, analyzing and presenting data in an effective and useful way.	Inferential statistics deals with comparing the data, testing i.e., making hypotheses & estimates, and predicting future results.
Descriptive statistics quantifies the known data i.e., it summarizes the characteristics of that data which is already known.	Inferential Statistics tries to make inferences or learn about the population i.e., it explains beyond the data that is available.
The purpose of descriptive statistics is to describe a situation or an event.	The purpose of inferential statistics is to explain the likelihood of occurrence of an event.
Descriptive statistics measures only the provided data and does not consider any other variables.	Inferential Statistical considers variables, sampling errors that may lead to conducting additional tests.
Descriptive Statistics gives the result or output in the form of tables, charts, or graphs.	Inferential Statistics generates probabilities as its result.
Descriptive statistics are applied on the entire population. The properties of the population are known as the parameters.	Inferential Statistics is applied on a subset of the population i.e., on sample. The properties of the sample are known as the sampling statistic.
Types: Measures of central tendency and measures of dispersion.	Types:Hypothesis testing and regression analysis.
The example of descriptive statistics is: ● You collect data on the SAT scores of all 11th graders in a school for three years. ● You can use descriptive statistics to get a quick overview of the school's scores in those years. ● You can then directly compare the mean SAT score with the mean scores of other schools.	The example of inferential statistics is: ● You randomly select a sample of 11th graders in your state and collect data on their SAT scores and other characteristics. ● You can use inferential statistics to make estimates and test hypotheses about the whole population of 11th graders in the state based on your sample data.