**Descriptive Statistics:**

**1) What is the purpose of descriptive statistics?**

**The main purpose of descriptive statistics is to summarize and describe the essential features, patterns, and characteristics of a dataset.**

**2) Can you explain the difference between mean, median, and mode?**

**Mean is the average of a data set is found by adding all numbers in the data set and then dividing by the number of values in the set.**

**Median is the middle value when a data set is ordered from least to greatest.**

**Mode is the number that occurs most often in a data set.**

**3) How do you interpret the standard deviation of a dataset?**

**A standard deviation is a measure of how dispersed the data is in relation to the mean.**

**4)Describe the concept of skewness in statistics.**

**Skewness is a statistical measure that is used to show whether a distribution is distorted or asymmetrical. If the skewness is right-tailed the skew is positive.**

**Inferential Statistics:**

**1) What is the main goal of inferential statistics?**

**The main goal of inferential statistics is to make inferences, predictions, or generalizations about a population based on a sample of data taken from that population.**

**2)Explain the difference between a population and a sample.**

**A population is the entire group that you want to draw conclusions about. A sample is the specific group that you will collect data from.**

**3) What is a confidence interval, and how is it useful in inferential statistics?**

**A confidence interval is a range of values or an interval estimate that provides a plausible range of values for an unknown population parameter.**

**4) Define p-value**

**A p-value is a statistical measurement used to validate a hypothesis against observed data.**