1 - True

2- a) Central Limit Theorem

3- b) Modeling bounded count data

4- c) The square of a standard normal random variable follows what is called chi-squared distribution

5- c) Poisson

6-b) False

7-b) Hypothesis

8-a) 0

9- c) Outliers cannot conform to the regression relationship

10- Normal Distribution is a probability distribution that is symmetric and bell-shaped. It is characterized by its mean and standard deviation and is commonly used to model continuous variables in statistics.

11- Handling missing data is an important aspect of data analysis. Imputation techniques can be used to replace missing values with estimated values based on other available information. Some commonly used imputation techniques include mean imputation, regression imputation, and multiple imputation.

12- A/B testing is a statistical technique used to compare the performance of two different versions of a product or service. It involves randomly assigning individuals to either an A group (control group) or a B group (treatment group) and comparing the outcomes between the two groups.

13- Mean imputation of missing data is a commonly used technique, but it has some limitations. It can distort the distribution of the variable and underestimate the variance. Therefore, it is important to consider other imputation techniques, such as regression imputation or multiple imputation, which can provide more accurate estimates.

14- Linear regression is a statistical technique used to model the relationship between a dependent variable and one or more independent variables. It involves estimating the parameters of a linear equation that best fit the data and can be used for prediction and hypothesis testing.

15- Statistics is a broad field that includes various branches such as descriptive statistics, inferential statistics, biostatistics, econometrics, machine learning, data mining, and many others. Each branch

of statistics focuses on a different aspect of data analysis, such as summarizing data, making inferences, modeling relationships, and predicting outcomes.