Ans 1) a)True

Ans 2) a) Central Limit Theorem

Ans 3) b) Modeling bounded count data

Ans 4) d) All of the mentioned

Ans 5) c) Poisson

Ans 6) b) False

Ans 7) b) Hypothesis

Ans 8) a) 0

Ans 9) c) Outliers cannot conform to the regression relationship

Ans 10) Normal distribution, also known as the Gaussian distribution, is a probability distribution that is symmetric about the mean, showing that data near the mean are more frequent in occurrence than data far from the mean. In graphical form, the normal distribution appears as a "bell curve".

Ans 11) Missing data can be dealt with in a variety of ways. The most common reaction is to ignore it.
Another common strategy is imputation. Imputation is the process of substituting an estimate for missing values and analyzing the entire data set as if the imputed values were the true observed values.

i)Mean imputation
Calculate the mean of the observed values for that variable for all non-missing people.

ii)Substitution
Assume the value from a new person who was not included in the sample.

iii)Hot deck imputation
A value picked at random from a sample member who has comparable values on other variables.

iv)Cold deck imputation
A value picked deliberately from an individual with similar values on other variables.

v)Regression imputation
The result of regressing the missing variable on other factors to get a predicted value.As a result, instead of utilizing the mean, you're relying on the anticipated value, which is influenced by other factors.

Ans 12) A/B testing is a basic randomized control experiment. It is a way to compare the two versions of a variable to find out which performs better in a controlled environment.

For instance, let’s say you own a company and want to increase the sales of your product. Here, either you can use random experiments, or you can apply scientific and statistical methods. A/B testing is one of the most prominent and widely used statistical tools.

Ans 13) Mean imputation is typically considered terrible practice since it ignores feature correlation.

Ans 14) Linear regression analysis is used to predict the value of a variable based on the value of another variable. The variable you want to predict is called the dependent variable. The variable you are using to predict the other variable's value is called the independent variable.

Ans 15) There are three real branches of statistics: data collection, descriptive statistics and inferential statistics.