Statistics Answers

1) A-True

2) A- Central Limit Theorem

3) B-Modeling Bounded count data

4) D- All of the mentioned

5) C- Poisson

6) B- False

7) B- Hypothesis

8) A-0

9)C- Outliers cannot conform to the regression relationship

10)Normal Distribution:

The normal distribution is the most common type of distribution used in statistical analyses. The standard normal distribution has two parameters: the mean and the standard deviation. Mean is zero and the standard deviation is 1.Normal distributions are symmetric, uni model, and asymptotic, and the mean, median, and mode are all equal. Normal distribution is the proper term for a probability bell curve.

11) Handling missing data and imputation techniques:

Imputation is the process of the handling the missing data by replacing such missing data with substitute values. Techniques to deal with missing data include: hot deck and cold deck imputation; list wise and pair wise deletion; mean imputation; non-negative matrix factorization; regression imputation; last observation carried forward; stochastic imputation; and multiple imputation.

12) A/B testing: also known as split testing, refers to a randomized experimentation process wherein two or more versions of a variable (web page, page element, etc.) are shown to different segments of website

visitors at the same time to determine which version leaves the maximum impact and drive business metrics.

13) Mean imputation is not a good solution because it reduces the variance of the imputed variables. It shrinks standard errors, which invalidates most hypothesis tests and the calculation of confidence interval. Mean imputation does not preserve relationships between variables such as correlations.

14) Linear regression is a linear approach for modeling the relationship between a scalar response and one or more explanatory variables (also known as dependent and independent variables). The case of one explanatory variable is called simple linear regression; for more than one, the process is called multiple linear regressions.

15) The two main branches of statistics are descriptive statistics and inferential statistics. Collecting, summarizing, presenting and analyzing data comes under descriptive statistics. Using data collected from a small group to draw conclusions about a larger group comes under inferential statistics.