

STATISTICS WORKSHEET-1

1. A (True)
2. A (Central Limit Theorem)
3. B (Modeling bounded count data)
4. D (All of the mentioned)
5. B (Binomial)
6. B (False)
7. B (Hypothesis)
8. A (0)
9. C (Outliers cannot conform to the regression relationship)
10. Normal distribution also known as Gaussian distribution. It 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.
11. There are many ways to handle missing data as mentioned below:-
 - 1) Deleting rows with missing values.
 - 2) Mean, Median, Mode imputation.
 - 3) Input missing value for categorical variable.
 - 4) Using algorithm that support missing values.
 - 5) Prediction of missing values.

The best method to delete rows with missing data as it ensures that no bias or variance is added or removed. This is only recommended if there is a lot of data to start with and the percentage of missing values is low.

12. A/B testing is basically statistical hypothesis testing or in other words, statistical inference. It is an analytical method for making decisions that estimates population parameters based on sample statistics.

A/B testing process can be simplified as follows:

1. You start the A/B testing process by making a claim (hypothesis).
 2. You launch your test to gather statistical evidence to accept or reject a claim (hypothesis) about your website visitors.
 3. The final data shows you whether your hypothesis was correct, incorrect or inconclusive.
- 13.
 14. In statistics, linear regression is a linear approach for modelling the relationship between a scalar response and one or more explanatory variables (also known as dependent and independent variables).

15. In Statistics have two main branches :

Descriptive Statistics – Descriptive statistics deals with the collection of data, its presentation in various forms, such as tables, graphs and diagrams and finding averages and other measures which would describe the data.

Inferential Statistics - Inferential statistics deals with techniques used for the analysis of data, making estimates and drawing conclusions from limited information obtained through sampling and testing the reliability of the estimates.