STATISTICS WORKSHEET-1

1. True
2. Central Limit Theorem
3. 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**
    It is also called Gaussian distribution
    It is a symmetric probability distribution and it looks like a bell shaped curve.
    In a normal distribution, the mean, median, and mode are all equal and located at the center of the distribution.
    In normal distribution there is a rule 68-95-999.7 rule it states that 68% of the data falls within one standard deviation of the mean, approximately 95% falls within two standard deviations, and about 99.7% falls within three standard deviations.

11. To handle missing data multiple imputation can be used
    Imputation methods are those where the missing data are filled in to create a complete data matrix that can be analyzed using standard methods. Single imputation procedures are those where one value for a missing data element is filled in without defining an explicit model for the partially missing data.

12. **A/B** testing also called as split testing
    it is a method for comparing 2 version of something to figure out which one is perform better

13.
14. Linear Regression in statistics used to model the relationship between dependent variable and independent variable.
    The main gaol is to find the best fitting line the data points
    It is used in various filed of predictions such as weather forecasting ,to understand relationship betweenvariable

15. The two main Branches are
    DESCRIPTIVE STATISTICS & INFERENTIAL STATISTICS

Description: Descriptive statistics involves summarizing and describing the main features of a dataset. Measures such as mean, median, mode, range, variance, and standard deviation fall under descriptive statistics.

Inference: Inferential statistics involves making predictions or inferences about a population based on a sample of data. It includes hypothesis testing, confidence intervals, and regression analysis.