STATISTICS ANSWERS

1. Bernoulli random variables take (only) the values 1 and 0.
   1. **True**
2. Which of the following theorem states that the distribution of averages of iid variables, properly normalized, becomes that of a standard normal as the sample size increases?
   1. **Central Limit Theorem**
3. Which of the following is incorrect with respect to use of Poisson distribution?
   1. **All of the mentioned**
4. Point out the correct statement

**d) All of the mentioned**

1. random variables are used to model rates.

**Poisson.**

1. 10. Usually replacing the standard error by its estimated value does change the CLT.
2. **False**
3. 1. Which of the following testing is concerned with making decisions using data?
4. **Hypothesis**
5. 4. Normalized data are centered at and have units equal to standard deviations of the original data.
   1. **0**
6. Which of the following statement is incorrect with respect to outliers?
7. **Outliers cannot conform to the regression relationship**

# subjective type questions,

1. What do you understand by the term Normal Distribution?

**Ans :- A Normal Distribution is an arrangement of a data set in which most values cluster in the middle of the range and the rest taper off symmetrically toward either extreme end.**

1. How do you handle missing data? What imputation techniques do you recommend?

**Ans :- Missing data can be dealt with in a variety of ways. Another common strategy among those who pay attention is imputation.**

1. **Mean imputation.**
2. **Substitution.**
3. **Hot deck imputation.**
4. **Cold deck imputation.**
5. **Regression imputation.**
6. **Stochastic Regression imputation.**
7. **Interpolation and extrapolation.**
8. What is A/B testing?

**Ans :- An AB test is an example of statistical hypothesis testing, a process whereby a hypothesis is made about the relationship between two data sets and those data sets are then compared against each other to determine if there is a statistically significant relationship or not.**

1. Is mean imputation of missing data acceptable practice?

**Ans :- Mean imputation is typically considered terrible practice since it ignores feature correlation.**

1. What is linear regression in statistics?

**Ans :- Linear regression models the relationships between at least one explanatory variable and out come variable. These variable are known as the independent and dependent variables, respectively. When there is one independent variable (IV), the procedure is known as simple linear regression. When there are more IVs, statisticians refer to it as multiple regression.**

1. What are the various branches of statistics?

**Ans :- The two main branches of statistics are**[**descriptive statistics**](https://explorable.com/descriptive-statistics)**and**[**inferential statistics**](https://explorable.com/inferential-statistics)**. Both of these are employed in scientific analysis of data and both are equally important for the student of statistics.**