

**Q1 to Q9 has only one correct answer. Choose the correct option to answer your question.**

1. Bernoulli random variables take (only) the values 1 and 0.  
a) 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?  
a) Central Limit Theorem
3. Which of the following is incorrect with respect to the use of Poisson distribution?  
b) Modeling bounded count data
4. Point out the correct statement.  
a) The exponent of normally distributed random variables follows what is called the log-normal distribution
5. \_\_\_\_\_ random variables are used to model rates.  
c) Poisson
6. 10. Usually replacing the standard error with its estimated value does change the CLT.  
b) False
7. 1. Which of the following testing is concerned with making decisions using data?  
a) Probability
8. 4. Normalized data are centered at \_\_\_\_\_ and have units equal to standard deviations of the original data.  
a) 0
9. Which of the following statement is incorrect with respect to outliers?  
c) Outliers cannot conform to the regression relationship

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

It is also known as the bell curve because of its shape. It is described by the mean and the standard deviation. The area within the curve of normal distribution shows probabilities for the data.

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

When dealing with missing data, we can use two primary methods to solve the error: imputation or the removal of data. I would recommend the imputation method; it is the technique that develops reasonable guesses for missing data. It's most useful when the percentage of missing data is low. If the portion of missing data is too high, the results lack natural variation that could result in an effective model.

12. What is A/B testing?

A/B tests, also known as split tests, allow you to compare two versions of anything to learn which is more effective.

13. Is mean imputation of missing data acceptable practice?

Yes.

14. What is linear regression in statistics?

Linear regression is a basic and commonly used type of predictive analysis.

15. What are the various branches of statistics?

There are two branches descriptive statistics, and inferential statistics, which comprise the field of statistics.