STATISTICS WORKSHEET-1

Q1 to Q9 have 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 use of Poisson distribution?

b) Modeling bounded count data

4. Point out the correct statement.

d) All of the mentioned

5. _____ random variables are used to model rates.

c) Poisson

6. 10. Usually replacing the standard error by its estimated value does change the CLT.

b) False

7. 1. Which of the following testing is concerned with making decisions using data?

b) Hypothesis

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

WORKSHEET

Q10and Q15 are subjective answer type questions, Answer them in your own words briefly.

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

Ans: Distribution is always normal irrespective of ample size. A normal distribution is the proper term for a probability bell curve. In normal distribution the mean is zero and the standard deviation is 1.

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

12. What is A/B testing?

Ans: 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.

13. Is mean imputation of missing data acceptable practice?

Ans: Yes, mean imputation is of missing data acceptable practice.

14. What is linear regression in statistics?

Ans: Linear regression analysis is used to predict the value of a variable based on the value of another variable. The variable you want to predict is called the dependent variable. The variable you are using to predict the other variable's value is called the independent variable.

15. What are the various branches of statistics?

Ans: There are three branches of statistics:

Data collection, descriptive statistics and inferential statistics.