1. Bernoulli random variables take (only) the values 1 and 0.

Ans: True

1. 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?

Ans: Central Limit Theorem

1. Which of the following is incorrect with respect to use of Poisson distribution?

Ans: Modeling bounded count data

1. Point out the correct statement

Ans: All of the mentioned

1. \_\_\_\_\_\_ random variables are used to model rates.

Ans: Poisson

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

Ans: False

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

Ans: Hypothesis

1. Normalized data are centered at\_\_\_\_\_\_and have units equal to standard deviations of the  
   original data

Ans: 0

1. Which of the following statement is incorrect with respect to outliers?

Ans: Outliers cannot conform to the regression relationship

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

Ans: Normal Distribution also known as Gaussian distribution 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 mean. In graph form the normal distribution will appear as a bell curve.

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

Ans: Mean imputation is the easiest way to impute is to replace each missing value with the mean of the observed values for that variable.

1. What is A/B testing?

Ans: A/B testing is a user experience research methodology. It consists of a randomized experiment with two variants, A and B. it includes application of statistical hypothesis testing or two sample hypothesis testing as used in the field of statistics.

1. Is mean imputation of missing data acceptable practice?

Ans: Imputing the mean preserves the mean of the observed data. So if the data is missing completely at random the estimate of the mean remains unbaised.

1. What is linear regression in statistics?

Ans: 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.

1. What are the various branches of statistics?

Ans: The two major areas of statistics are known as descriptive statistics which describes the properties of sample and population data and inferential statistics which uses those properties to test hypotheses and draw conclusions.