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

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?

Central Limit Theorem

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

Modeling bounded count data

4. Point out the correct statement

All of the mentioned

5. _____ random variables are used to model rates.

Poisson

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

False

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

Hypothesis

8. Normalized data are centered at_____and have units equal to standard deviations of the original data.

0

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

Outliers cannot conform to the regression relationship

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

Normal distribution, also known as the 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 the mean. In graph form, normal distribution will appear as a bell curve.

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

Depending on the type of the imputed variable (i.e. continuous, ordinal, nominal) and missing data pattern (i.e. monotone, non-monotone), below are a few commonly used models. If you plan to do it in SAS, there are SAS codes that you can write to identify the missing data pattern.

- Logistic Regression
- Discriminant Regression
- Markov Chain Monte Carlo (MCMC)

12. What is A/B testing?

also known as split testing, refers to a randomized experimentation process wherein two or more versions of a variable (web page, page element, etc.) are shown to different segments of website visitors at the same time to determine which version leaves the maximum impact and drive business metrics.

14) . Is mean imputation of missing data acceptable practice?. Is mean imputation of missing data acceptable practice?

This is the original logic involved in mean imputation.
If all you are doing is estimating means (which is rarely the point of research studies), and if the data are missing completely at random, mean imputation will not bias your parameter estimate.

14) What is linear regression in statistics?

Linear regression **attempts to model the relationship between two variables by fitting a linear equation to observed data**. ... A linear regression line has an equation of the form Y = a + bX, where X is the explanatory variable and Y is the dependent variable.

15) What are the various branches of statistics?

Data Treatment. **Parameters**. **Statistical Analysis**. **Descriptive Statistics**.