1. Bernoulli random variables take (only) the values 1 and 0.
ANS: 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?
ANS: a) Central Limit Theorem

3. Which of the following is incorrect with respect to use of Poisson distribution?
ANS: b) Modeling bounded count data

4. Point out the correct statement.
ANS: d) All of the mentioned

5. _____ random variables are used to model rates.
ANS: c) Poisson

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

ANS : b) False

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

ANS : b) Hypothesis

8. Normalized data are centered at_____and have units equal to standard deviations of the original data.
ANS: a) 0

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

ANS: c) Outliers cannot conform to the regression relationship

10. What do you understand by the term Normal Distribution?
Ans : In a normal distribution, the mean, mode and median are all the same.

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

- Dropping rows with null values
- Dropping features with high nullity
- Mean or median or other summary statistic substitution

12. What is A/B testing?

ANS: It is a way to compare the two versions of a variable to find out which performs better in a controlled environment.

13. Is mean imputation of missing data acceptable practice?
ANS: No, because mean imputation decreases the variance of our data while increasing bias. As a result of the reduced variance, the model is less accurate and the confidence interval is narrower.

14. What is linear regression in statistics?
ANS: Linear regression is a basic and commonly used type of predictive analysis.

15. What are the various branches of statistics?
**ANS:**

1. **Descriptive Statistic: It deals with the presentation and collection of data.**

2. **Inferential Statistics: It involves drawing the right conclusions from the statistical analysis that has been performed using descriptive statistics.**