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

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

4. Point out the correct statement.
   a) The exponent of a normally distributed random variables follows what is called the log-normal distribution
   b) Sums of normally distributed random variables are again normally distributed even if the variables are dependent
   c) The square of a standard normal random variable follows what is called chi-squared distribution

   Answer:- All of the mentioned

5. _____random variables are used to model rates.
   Answer:-Poisson

6. Usually replacing the standard error by its estimated value does change the CLT.
   Answer:-False

7. Which of the following testing is concerned with making decisions using data?
   Answer:- Hypothesis

8. Normalized data are centered at_____and have units equal to standard deviations of the original data.
   Answer:- 0

9. Which of the following statement is incorrect with respect to outliers?
   Answer:- Outliers cannot conform to the regression relationship

10. What do you understand by the term Normal Distribution?
    Answer:- The normal distribution is a probability distribution that describes many common datasets in the real world. It is the most common type of distribution, and it arises naturally in statistics through random sampling techniques.

11. How do you handle missing data? What imputation techniques do you recommend?
    Answer:- Appropriately dealing with missing data can be challenging as it requires a careful examination of the data to identify the type and pattern of missingness, When dealing with missing data, we can use two primary methods to solve the error: **imputation or the removal of data**. The imputation method develops reasonable guesses for missing data so I would go with Listwise deletion (or complete case analysis) method as its seems easy.

12. What is A/B testing?
    Answer:- A/B testing is an experiment on two variants to see which performs better based on a given metric.

13. Is mean imputation of missing data acceptable practice?
    Answer:- No, since it ignores feature correlation

14. What is linear regression in statistics?
    Answer:- Linear regression is the practice of statistically calculating a straight line that demonstrates a relationship between two different items.

15. 15. What are the various branches of statistics?
    Answer:- Data collection, Descriptive statistics and Inferential statistics.