STATISTICS WORKSHEET-1

1. Bernoulli random variables take (only) the values 1 and 0.
   Ans:- b) False

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:- b) Central Mean Theorem

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

Ans:- a) Modeling event/time data

4. Point out the correct statement.

Ans:- b) Sums of normally distributed random variables are again normally distributed even if the variables are dependent.

5. _____ random variables are used to model rates.

Ans:- c) Poisson

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

Ans:- b) False

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

Ans:- b) Hypothesis

8. 4. 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:- The graph of normally distributed data will look like bell. The mean value of which is always Zero.

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

Ans:- Based on the type of data we have and the type of problem statement we have to solve. We have to take decision of choosing which imputation technique is most suitable and logical or meaningful.

The list of mostly used Imputation techniques are as follows

- Simpe imputer
- Knn imputer
- Iterative imputer

12. What is A/B testing?

Ans:- It is a statistical hypothesis testing. It is used to compare two variable data.

13. Is mean imputation of missing data acceptable practice?

Ans:- No

14. What is linear regression in statistics?

Ans:- It is a statistical tool to predict a variable based on the available data of other variable or variables.

15. What are the various branches of statistics?

Ans:- Descriptive and Inferential