STATISTICS WORKSHEET-1

Q1 to Q9 have only one correct answer. Choose the correct option to answer your question.

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

Answer - 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?

Answer - a) Central Limit Theorem

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

Answer - b) 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

d) All of the mentioned

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

Answer - c) Poisson

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

Answer - b) False

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

Answer - b) Hypothesis

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

Answer - a) 0

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

Answer - a) Outliers can have varying degrees of influence

Q.10and Q15 are subjective answer type questions, Answer them in your own words briefly.

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

Answer- Normal Distribution is used to check the data is equally distributed from the Mean position

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

Answer – It depends on the type of data which data if the data can be filled with the Mean value then it will be the best method

Techniques used can be Mean Imputation and Substitution

12. What is A/B testing?

Answer-

13. Is mean imputation of missing data acceptable practice?

Answer – Not always

14. What is linear regression in statistics?

Answer- Linear regression is technique used for predicting the value of the dependent variable based on independent variable

15. What are the various branches of statistics?

Answer- 1. Inferential staistics 2.Descriptive Stastics