STATISTICS WORKSHEET-3

1. Which of the following is the correct formula for total variation?
   Ans: Total Variation = Residual Variation + Regression Variation

2. Collection of exchangeable binary outcomes for the same covariate data are called_____outcomes.
   Ans: binomial

3. How many outcomes are possible with Bernoulli trial?
   Ans: 2

4. If Ho is true and we reject it is called
   Ans: Type-I error

5. Level of significance is also called:
   Ans: Size of the test

6. The chance of rejecting a true hypothesis decreases when sample size is:
   Ans: Both of them

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

8. What is the purpose of multiple testing in statistical inference?
   Ans: All of the mentioned

9. Normalized data are centred at____and have units equal to standard deviations of the original data
   Ans: 0

10. What Is Bayes' Theorem?

    Ans: Bayes theorem is a mathematical formula, which is used to determine the conditional probability of the given event. Conditional probability is defined as the likelihood that an event will occur, based on the occurrence of a previous outcome.

11. What is z-score?

    Ans: Z-score is also known as standard score gives us an idea of how far a data point is from the mean. Z-score = x-mean / std

12. What is t-test?

    Ans: A T-test is a statistical method of comparing the means or proportions of two samples gathered from either the same group or different categories. It is aimed at hypothesis testing, which is used to test a hypothesis pertaining to a given population. It is the difference between population means and a hypothesized value.

13. What is percentile?

    Ans: In statistics, percentiles are used to understand and interpret data.

14. What is ANOVA?

Ans: Analysis of variance (ANOVA) is an analysis tool used in statistics that splits an observed aggregate variability found inside a data set into two parts: systematic factors and random factors.

15. How can ANOVA help?

Ans: Analysts use the ANOVA test to determine the influence that independent variables have on the dependent variable in a regression study.