STATISTICS WORKSHEET-3

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

2. Collection of exchangeable binary outcomes for the same covariate data are called outcomes.
Ans c) binomial

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

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

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

6. The chance of rejecting a true hypothesis decreases when sample size is:
Ans b) Increase

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

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

9. Normalized data are centred at and have units equal to standard deviations of the original data
Ans a) 0

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10. What Is Bayes' Theorem?
Ans - **Bayes' theorem** describes the probability of occurrence of an event related to any condition. It is also considered for the case of conditional probability.

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. It indicates how many standard deviations an element is from the mean.

12. What is t-test?
Ans - A t test is a statistical test that is used to compare the means of two groups. It is often used in hypothesis testing to determine whether a process or treatment actually has an effect on the population of interest, or whether two groups are different from one another.

13. What is percentile?
Ans - In statistics, percentiles are used to understand and interpret data. The n th percentile of a set of data is the value at which n percent of the data is below it. In everyday life, percentiles are used to understand values such as test scores, health indicators, and other measurements.

14. What is ANOVA?
Ans- An ANOVA test is a type of statistical test used to determine if there is a statistically significant difference between two or more categorical groups by testing for differences of means using variance.

15. How can ANOVA help?
Ans - ANOVA is useful for testing at least three factors. It is like numerous two-example t-tests. However, it brings about less type I mistake and is proper for a scope of issues. ANOVA groups differentiate by looking at the methods for each group and incorporate spreading out the variation into different sources. It is utilized with subjects, test groups, among groups, and in groups.