

STATISTICS WORKSHEET-3

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

1. Which of the following is the correct formula for total variation?
Total Variation = Residual Variation + Regression Variation
2. Collection of exchangeable binary outcomes for the same covariate data are called _____ outcomes.
binomial
3. How many outcomes are possible with Bernoulli trial?
2
4. If H_0 is true and we reject it is called
Type-II error
5. Level of significance is also called:
Level of confidence
6. The chance of rejecting a true hypothesis decreases when sample size is:
Increase
7. Which of the following testing is concerned with making decisions using data?
None of the mentioned
8. What is the purpose of multiple testing in statistical inference?
All of the mentioned

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

Q10 and Q15 are subjective answer type questions, Answer them in your own words briefly.

10. What Is Bayes' Theorem?

Answer - Bayes' Theorem states that the conditional probability of an event, based on the occurrence of another event, is equal to the likelihood of the second event given the first event multiplied by the probability of the first event.

11. What is z-score?

Answer - Z-score indicates how much a given value differs from the standard deviation. The Z-score, or standard score, is the number of standard deviations a given data point lies above or below mean. Standard deviation is essentially a reflection of the amount of variability within a given data set.

12. What is t-test?

Answer - 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?

Answer - a value on a scale of one hundred that indicates the percent of a distribution that is equal to or below it. a percentile score of 95 is a score equal to or better than 95 percent of the scores

14. What is ANOVA?

Answer - Analysis of variance (ANOVA) is a collection of statistical models and their associated estimation procedures (such as the "variation" among and between groups) used to analyze the differences among means

15. How can ANOVA help?

Answer - ANOVA is helpful for testing three or more variables. It is similar to multiple two-sample t-tests.