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?

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- d) None of the mentioned

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

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. Bayes theorem is also known as the formula for the probability of "causes".

11. What is z-score?

Ans- A z score is simply defined as **the number of standard deviation from the mean**. The z-score can be calculated by subtracting mean by test value and dividing it by standard value. Where x is the test value, µ is the mean and σ is the standard value

12. What is t-test?

Ans - What is the T-test? The t-test is **a test that is mainly used to compare the mean of two groups of samples**. It is meant for evaluating whether the means of the two sets of data are statistically significantly different from each other. There are many types of t-test.

13. What is percentile ?

Ans-If your test score is in the 13th percentile, it means that **you scored better than 13 percent of all the test takers**. It also means that 87 percent scored the same or better than you.

14. What is ANOVA?

Ans - Analysis of variance (ANOVA) is **a statistical technique that is used to check if the means of two or more groups are significantly different from each other**. ANOVA checks the impact of one or more factors by comparing the means of different samples

15. How can ANOVA help

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