

Answers Of STATISTICS WORKSHEET-3: -

1. b) Total Variation = Residual Variation + Regression Variation
2. c) binomial
3. a) 2
4. a) Type-I error
5. b) Size of the test
6. b) Increase
7. b) Hypothesis
8. d) All of the mentioned
9. a) 0
10. 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. A Z-score is a numerical measurement that describes a value's relationship to the mean of a group of values. Z-score is measured in terms of standard deviations from the mean. If a Z-score is 0, it indicates that the data point's score is identical to the mean score.
12. 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. Percentile is defined as the value below which a given percentage falls under. For example, in a group of 20 children, Sam is the 4th tallest and 80% of the children are shorter than you. Hence, it means that Sam is at the 80th percentile.
14. Analysis of variance, or ANOVA, is a statistical method that separates observed variance data into different components to use for additional tests. A one-way ANOVA is used for three or more groups of data, to gain information about the relationship between the dependent and independent variables.
15. ANOVA is helpful for testing three or more variables. It is similar to multiple two-sample t-tests. However, it results in fewer type I errors and is appropriate for a range of issues. ANOVA groups differences by comparing the means of each group and includes spreading out the variance into diverse sources.