## **STATISTICS-3**

## **Answers of Following Questions-**

Ans 1-(b) Total Variation = Residual Variation + Regression Variation

Ans 2-(c) binomial

Ans 3-(a) 2

Ans 4-(a) Type-I error

Ans 5-(b) Size of the test

Ans 6-(b) Increase

Ans 7-(b) Hypothesis

Ans 8-(a) Minimize errors

Ans 9-(a) 0

Ans 10-A theorem describing how the conditional probability of each of a set of possible causes for a given observed outcome can be computed from knowledge of the probability of each cause and the conditional probability of the outcome of each cause

Ans 11-a theorem describing how the conditional probability of each of a set of possible causes for a given observed outcome can be computed from knowledge of the probability of each cause and the conditional probability of the outcome of each cause

Ans 12-A t-test is any statistical hypothesis test in which the test statistic follows a Student's t-distribution under the null hypothesis. It is most commonly applied when the test statistic would follow a normal distribution if the value of a scaling term in the test statistic were known

Ans 13-Percentile is in everyday use, but there is no universal definition for it. The most common definition of a percentile is a number where a certain percentage of scores fall below that number.

Ans 14-Analysis of Variance (ANOVA) is a statistical formula used to compare variances across the means (or average) of different groups. A range of scenarios use it to determine if there is any difference between the means of different groups

Ans 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