STATISTICS ASSIGNMENT 3 SOLUTIONS

Ans1-(b) Total Variation = Residual Variation + Regression Variation

Ans2-(c) binomial

Ans3-(a) 2

Ans4-(a) type-I error

Ans5-(c)

Ans6-(b) Increase

Ans7-(b) Hypothesis

Ans8-(d) All of the mentioned outcomes.

Ans9-(a) 0

Ans10- Baye's Theorem is a theorem which is used to determine the conditional probability of events. It is the probability of occurrence of an event related to any condition. In other words we can say that probability of an event based on the occurrence of the other events which already happened.

Ans11- Z-Score is nothing but a technique used to identify outliers in a dataset, it tells us how much a data is away from the standard normal distribution.

Ans12- A t-test is a statistical method used to identify the mean of two groups and how they are related t-test compares the average values of two groups and identify that they whether belong to same group or not.

Ans13- A percentile is a comparison score between a particular score and the scores of the rest of a group. For example, if a person scores 80 marks in a test and comes under 90^{th} percentile, it means that the score 80 is higher than 90^{th} percentile.

Ans14- ANOVA is analysis of variance, it is used to determine the difference between the mean of the two or more groups. There are two types of anova- one way anova and two way anova. One way anova uses single independent variable while two way anova uses two independent variable.

Ans15-ANOVA helps you to figure out if you need to reject the null hypothesis or accept the alternate hypothesis. for example, if a doctor treating group of patients with three different medical treatment so which treatment is better than others.