Worksheet-Set 3: Statistics Assignment

Answer keys for questions from Q1 to Q9:

Question Number	Answer keys
Q1:	b) Total Variation = Residual Variation + Regression Variation
Q2:	c) binomial
Q3:	a) 2
Q4:	a) Type-I error
Q5:	c) Level of confidence
Q6:	b) Increase
Q7:	b) Hypothesis
Q8:	d) All of the mentioned
Q9:	a) 0

Q10. What Is Bayes' Theorem?

Bayes' theorem is a mathematical formula used to calculate the probability of an event based on prior knowledge of conditions that might be related to the event. It is a useful tool for updating the probabilities of events as new information becomes available.

Q11. What is z-score?

A z-score is a measure of how many standard deviations an observation is from the mean of a data set. It is calculated by subtracting the mean from the observation and dividing the result by the standard deviation.

Q12. What is t-test?

A t-test is a statistical test used to determine whether there is a significant difference between the means of two groups. It is used when the sample size is small and the population standard deviation is unknown.

Q13. What is percentile?

A percentile is a measure that indicates the value below which a certain percent of observations fall in a data set. For example, the 50th percentile is the value that is greater than or equal to 50% of the observations in the data set.

Q14. What is ANOVA?

ANOVA is a statistical method used to test the null hypothesis that the means of two or more groups are equal. It is used to determine whether there is a significant difference between the means of the groups.

Q15. How can ANOVA help?

ANOVA can help by allowing researchers to test the null hypothesis that the means of two or more groups are equal. This can be useful for determining whether there is a significant difference between the means of the groups, which can inform decision making and guide further research.