

# **Statistics Worksheet – 3**

1. B) Total variation = Residual variation + Regression variation

2. C) Binomial

3. A) 2

4. A) Type 1 error

5. C) Level of confidence

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 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 values 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 points score is identical to the mean score

12. A t-test is statistical test that compares the means of two samples. It is used in hypothesis testing , with a null hypothesis that the diff in group means is zero and an alternate hypothesis that the diff in group means is different from zero..

13. In statistical , a percentile is a term that describes how a score compares to other scores from the same set. While there is no universal definition of percentile it is commonly expressed as the percentage of values in a set of data scores that fall below a given value..

14. Analysis of variance (ANOVA) is a statistical formula used to compare variances across the means or average of different groups..

15. ANOVA is helpful for testing three or more variables . it is similar to multiple two – sample t – test however it results in fewer type 1 error 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..