Statistics Worksheet-8

1. b. The probability of failing to reject H 0 when H 1 is true

2. b. null hypothesis

3. d. Type I error

4. b. the t distribution with n - 1 degrees of freedom

5. a. accepting Ho when it is false

6. d. a two-tailed test

7. b. the probability of committing a Type I error

8. a. the probability of committing a Type II error

9. a. z > z

10. c. the level of significance

11. a. level of significance

12. d. All of the Above

13. ANOVA (Analysis of Variance) is a statistical hypothesis tests which is usually used for comparing means of more than two groups. It particularly gives the ratio of variances **between** the group and **within** the group, which helps to whether to accept or reject the null hypothesis based on **F-distribution.**

13. Assumption of **ANOVA** are:

- Samples taken for the test should be selected at random.

- Population of these samples should be normally distributed.

- Variations of these populations should be same.

- Samples should be independent of each other.

14.

SL. NO.	One-Way ANOVA	Two-Way ANOVA
1	It refers to a test where one categorical variable or single factor is taken into consideration	It refers to a test where two categorical variables or factors are taken into consideration.
2	It compares three or more sample means of a single factor.	Multiple levels of two factors are accounted for analysis.
3	Number of observations need not be same in each group.	Number of observations need to be same in each group.