Statistics Worksheet 1
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1. In hypothesis testing, type II error is represented by β and the power of the test is 1−β then β is:
b. The probability of failing to reject H0 when H1 is true

2. In hypothesis testing, the hypothesis which is tentatively assumed to be true is called the
b. null hypothesis

3. When the null hypothesis has been true, but the sample information has resulted in the rejection of the null, a _____ has been made
d. Type I error

4.For finding the p-value when the population standard deviation is unknown, if it is reasonable to assume that the population is normal, we use
b. the t distribution with n - 1 degrees of freedom

5. A Type II error is the error of
a. accepting Ho when it is false

6. A hypothesis test in which rejection of the null hypothesis occurs for values of the point estimator in either tail of the sampling distribution is called
d. a two-tailed test

7. In hypothesis testing, the level of significance is
b. the probability of committing a Type I error

8. In hypothesis testing, b is
a. the probability of committing a Type II error

9. When testing the following hypotheses at an α level of significance
H0: $p = 0.7$
H1: $p > 0.7$
The null hypothesis will be rejected if the test statistic Z is
a. $z > z\alpha$

10. Which of the following does not need to be known in order to compute the P-value?
c. the level of significance

11. The maximum probability of a Type I error that the decision maker will tolerate is called the

a. level of significance

12. For t distribution, increasing the sample size, the effect will be on
d. All of the Above

13. What is Anova in SPSS?

Ans: Analysis of Variance (ANOVA) is a statistical tool to calculate the relation between the two or more factors affecting the process output (the share in % a particular factors or factor interaction between them). Also we can say that it gives difference between the means of factors affecting process.

SPSS (Statistical Package for Social Sciences) is developed by IBM for quantitative analysis of data and it widely used in various industries for data analysis. It has data manipulation, data analysis module and data visualization also with prediction of model for given dataset.

14. What are the assumptions of Anova?

Ans: 1. The data is normally distributed, 2. The distribution is having same variance, 3. Samples are random and independent

15. What is the difference between one way Anova and two way Anova?

Ans: One way anova is only considers one independent variable affecting the dependent variable and two way anaova deal with two independent variables affecting dependent variable.