

Statistics Worksheet 8

Q1 – b) The probability of failing to reject H_0 when H_1 is true

Q2-b) null hypothesis

Q3-d) Type 1 error

Q4-b) the t distribution with $n - 1$ degrees of freedom

Q5-a) accepting H_0 when it is false

Q6-d) a two-tailed test

Q7-a) the probability of committing a Type II error

Q8-a) the probability of committing a Type II error

Q9-b) $z < z_\alpha$

Q10-c) the level of significance

Q11-a) level of significance

Q12-b) The t-ratio

Q13-Analysis of Variance, i.e. ANOVA in SPSS, is used for examining the differences in the mean values of the dependent variable associated with the effect of the controlled independent variables, after taking into account the influence of the uncontrolled independent variables.

Q14-There are three primary assumptions in ANOVA:

- The responses for each factor level have a normal population distribution.
- These distributions have the same variance.
- The data are independent.

Q15-The only difference between one-way and two-way ANOVA is the number of independent variables. A one-way ANOVA has one independent variable, while a two-way ANOVA has two.