Econometrics

Lecture 6: Simple Regression: Testing of Hypothesis
Quiz

1. Reliability of a point estimator is measured by its which of the following?
   a. standard error b. mean
   c. standard deviation d. None of the above

2. Random interval is known as
   a. standard error b. confidence interval
   c. type I error d. level of significance

3. The alternative hypothesis may be simple or composite.

4. Which of the following is the decision rule for t-test of significance for two tail test?
   a. $|t| > t_{\alpha/2,df}$ b. $t > t_{\alpha,df}$
   c. $t < t_{\alpha,df}$ d. none of the above

5. What are the two approaches to hypothesis testing?
   Confidence-Interval and Test-of-Significance are the two complementary Approaches to Hypothesis Testing

6. Does β represent a probability of rejecting the Type I error or committing the Type II error?

   β represents a probability of rejecting the Type II error.

7. Why do we use t-test instead of a z-test in constructing the confidence interval of regression coefficients?
   Because sigma is unknown.

8. What use can be made of the preceding *F ratio?*
   F provides a test statistic to test the null hypothesis that true β_2 is zero by comparing this F ratio with the F-critical obtained from F tables at the chosen level of significance, or obtain the p-value of the computed F statistic to make decision.

9. $\beta\hat{}_2 - \delta$ is lower confidence limit; $\beta\hat{}_2 + \delta$ is known as upper confidence limit.