Econometrics

Lecture 5: Hypothesis Testing

Quiz

1. A researcher, Sandra wishes to find out about the mean of a population. She takes a sample, calculates the sample mean and works out the 95% confidence interval for the population mean. Which of the following results would she prefer?
    a. The confidence interval is very wide
    b. The confidence interval is very narrow
    c. It makes no difference to her what the width of the confidence interval is
    d. None of the above

2. Suppose we have two populations, one with a smaller standard deviation than the other. We take two samples of the same size, one from each population, and work out a 95% confidence interval for each mean. The confidence interval for the population with the smaller standard deviation will be:
    a. Narrower; b. Wider
    c. The same width; d. All the above

3. The larger the sample, the smaller the spread in the sampling distribution. True / False

4. A hypothesis is an assumption about the sample parameter. True / False

5. The sigma value is known in 't' test statistics. True / False

6. What is a null hypothesis? Why is it called a null hypothesis?

7. Does the level of significance (α) represent a probability of rejecting the null hypothesis or alternative hypothesis?

8. If the test statistics falls in the critical region, do we accept or reject the null hypothesis?

9. When would we use a t-test instead of a z-test? Why might we prefer one over the other?

10. What is the goal in hypothesis testing?