

Sample Test for MPhil Econometrics

Section 1: Econometrics

1. **In a simple regression model, we use $(n-2)$ instead of $(n-1)$ as the degrees of freedom correction in the calculation of the sample variance for the errors. Why?**
 - a. There are two variables in the model, not just one.
 - b. Two parameters now need to be estimated before we can calculate the error term for each observation.
 - c. Because two of anything is better than one.
 - d. Because we just like to confuse students with a lot of silly formulas that must be memorized.
2. **When you are working with aggregate time-series data, one of the first data pathologies you might suspect would be**
 - a. heteroscedasticity
 - b. multicollinearity
 - c. serially correlated errors
 - d. endogeneity of regressors

Section 2: Economics

1. **A recession is:**
 - a. a period during which aggregate output declines
 - b. a period of very rapidly declining prices.
 - c. a period of declining unemployment.
 - d. a period of declining prices
2. **If the price elasticity of demand for a good is less than one in absolute terms, we say consumers of this good**
 - a. are not very sensitive to price.
 - b. are not very sensitive to the quantity they demand.
 - c. are very sensitive to price.
 - d. are elastic.

Section 3: Mathematics and Statistics

1. The process of selecting a subset of a population for a survey is known as:

- a. survey research.
- b. representation.
- c. triangulation.
- d. sampling.

2. The set of real numbers contains elements which are:

- a. Union of rational and irrational numbers.
- b. intersection of rational and irrational numbers.
- c. union of odd and even numbers.
- d. intersection of odd and even numbers.