Quiz #11

Modelos Logit y Probit

Econometría 06216

Nombre: _____

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INSTRUCCIONES:

- Escoja la opción más adecuada.
- Usted cuenta con 5 minutos para resolver este quiz

1. Which of the following reasons make OLS an imperfect choice of an estimation method when the dependent variable is a dummy variable?
   a. There will be a major heteroskedasticity problem.
   b. If we interpret the fitted value of Y as the probability of the 1 outcome, then for some sets of explanatory variable values, this fitted probability will be either negative or greater than one.
   c. The conditional distribution of the Y variable, given a particular set of X values, is a two-valued discrete distribution, not a continuous approximately normal distribution.
   d. All of the above.

Answer d).

2. In a logit model specification, the best way to prove if all the parameters are statistically significant is:
   a. Use an *F* test.
   b. Use the likelihood ratio test .
   c. (a) and (b) are correct.
   d. None of the above.

Answer b).

3. Which of the following assumptions related to the distribution of the error term corresponds to a probit model.
   a. The error term follows a normal distribution.
   b. The error term follows a logistic distribution.
   c. The error term follows a chi-square distribution.
   d. None of the above.

Answer b).

4. The difference between a logit and probit model is:
   a. The estimation method.
   b. The assumption on the error term behavior.
   c. There is no difference.
   d. (a) and (b) are correct.

Answer b)

5. In comparing Maximum Likelihood Estimation (MLE) of unknown parameters with Ordinary Least Squares (OLS) estimation of unknown parameters, which of the following statements is false?
   a. OLS chooses the best-fitting line by minimizing the sum of squared vertical deviations of each Y value from the line that is chosen.
   b. MLE chooses the best-fitting line by maximizing the logarithm of the joint probability of observing the n independent observations on Y in the sample.
   c. If we assume that the errors in a typical regression model are normally distributed, then the best-fitting line by MLE will have exactly the same intercept and slope as the best-fitting line by OLS.
   d. MLE can be considered as a special case of OLS methods.

Answer d) .