

**Quiz #3**  
**Group 1**  
**Chapter 3, 4 and 5**  
**Econometrics 06169**  
**Suggested Answers**

Name: \_\_\_\_\_

- Choose the **MOST CORRECT** answer
- You have 5 minutes to solve out this quiz

1. Select the **Correct** statement:

- a) An Error from the linear model is observable.
- b) Error and deviation are the same things.
- c) **A BLUE estimator could estimate a pretty different value from the real one.**
- d) None of the above.
- e) All of the above.

2. Which elements are necessary to build a confidence intervals

- a) A point estimate and a probabilistic normal distribution
- b) A point estimate and an estimated standard error for any point estimator
- c) **A point estimate and an estimated standard error for the point estimator**
- d) Any of the above
- e) None of the above

3. A good representation for  $R^2$  is:

- a)  $R^2 = 1 - \frac{\sum e_i}{\sum y_i}$
- b)  $R^2 = 1 - \frac{\sum e_i^2}{\sum y_i^2}$
- c)  $R^2 = 1 - \frac{\sum e_i^2}{\sum y_i}$
- d)  $R^2 = 1 - \frac{\sum e_i}{\sum y_i^2}$
- e) None of the above

4. In a multiple regression model with intercept, we can affirm that:

- a) **The OLS residuals always sum to zero.**
- b) The OLS estimators are biased.
- c) The OLS estimators are efficient.

- d) The  $R^2$  is larger number than 1.
- e) Depends of the situation.

5. It is desirable to have estimators that are BLUE, because:

- a) Linear estimators are always better than non-linear ones.
- b) **For hypothesis testing it is desirable to have minimum variance as well as unbiased estimators because otherwise our tests are weaker than they should be.**
- c) If estimators are BLUE the  $R^2$  cannot be improved upon.
- d) All of the above.
- e) None of the above.