

**Quiz # 4**  
**Chapter 6 and 7**  
**Suggested Answers**  
**Econometrics 06216**

Name \_\_\_\_\_

- Choose the **MOST CORRECT** answer
  - You have 5 minutes to solve out this quiz
1. The adjusted coefficient of determination is calculated in order to:
    - a. **Make comparisons between models with different number of regressors**
    - b. Make comparisons between models with different dependent variable.
    - c. The coefficient of determination is definitely a bad estimator.
    - d. All of the above
    - e. None of the above
  2. Is a Gauss-Markov assumption in matrix form:
    - a.  $\hat{\beta} = [X'X]^{-1} X'Y$
    - b. Estimate If the estimator is unbiased, all the variation comes from estimation errors.
    - c. If the estimator is biased, all the variation comes from estimation errors.
    - d.  $E[\varepsilon\varepsilon^T] = mI$
    - e. None of the above.
  3. To test an hypothesis whit a t-test we need:
    - a. The standard error of the sample
    - b. **The value asserted under the null hypothesis**
    - c. The value asserted under the alternative hypothesis.
    - d. The critical value, extracted from the table of standard normal distribution.
    - e. All of the above.
  4. To probe  $H_0 : \beta_1 = 10$  vs  $H_1 : \beta_1 \neq 10$  with a probability of error type I of 0.05, we'll have:
    - a. A p-value of 0.025 in each tail.
    - b. A two tailed test whit an area of 0.25 in each tail.
    - c. **A two tailed test whit an area of 0.025 in each tail.**
    - d. A p-value of 0.25 in each tail.
    - e. None of the above.
  5. A critical region is:
    - a. The set of test statistics values that would lead an econometrician to accept the null hypothesis.
    - b. **The set of test statistics values that would lead an econometrician to reject the null hypothesis.**
    - c. The p-value region.
    - d. a and c
    - e. None of the above.