

Quiz # 5  
Chapter 9  
**Suggested Answers**  
Econometrics 06216

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

- Choose the **MOST CORRECT** answer
  - You have 5 minutes to solve out this quiz
1. Assume you add more explanators to certain multiple regression model, you can affirm that:
    - a. **The F-test is more likely to reject.**
    - b. The adjusted  $R^2$  will decrease.
    - c. The  $R^2$  will increase exponentially.
    - d. All of the above.
  2. Assume that you estimate a Cobb-Douglas production function:  $Q = AK^\alpha L^\beta$ , and you has serious evidence to considerer constant returns to scale. You will prove this with the null hypothesis: \_\_\_\_\_ and with a: \_\_\_\_\_.
    - a.  $H_0: \alpha = \beta$ , F-test.
    - b.  $H_0: \alpha + \beta - 1 = 0$ , Chi-squared-test.
    - c.  $H_0: \alpha + \beta > 1$ , t-test.
    - d. **None of the above.**
  3. If the  $R^2$  of regression model is 0.999, we can affirm that:
    - a. The F-statistics tends to zero.
    - b. **The F-statistics is near to infinite.**
    - c. The F-statistics tends to one.
    - d. The F-statistics converge to 100.
  4. Assume that you are hire by the Federal Reserve of the United States and you have been asked about a recently structural change (regime shifts) in the country's consumption function. You will consider:
    - a. **Execute a Chow test with fracture point September 11 of 2001.**
    - b. Execute a Wald test with fracture point Iraq war.
    - c. Execute a Dummy test with fracture point The Great Depression.
    - d. All of the above.
  5. If the disturbances are not normally distributed, and we have a small sample:
    - a. We still can use the F-test
    - b. We should use the F-statistic multiplied y the number of degrees of freedom.
    - c. We should use a chi-test
    - d. **We can't use the F-test**