Quiz # 4
Chapter 6 and 7
Suggested Answers
Group 3
Econometrics 06216

Name_____

- Choose the most correct answer
- You have 5 minutes to solve out this quiz

1. In the DGP: $Y_i = \beta_0 + \beta_1 X_{1i} + \beta_2 X_{2i} + ... + \beta_k X_{ki} + \varepsilon_i$ each slope coefficient indicates:
   a. How much E(Y) changes when the corresponding X changes by one unit, holding all the other explanators fixed
   b. How much Y changes when the corresponding X changes by one unit, holding all the other explanators fixed
   c. How much E(Y) changes when the corresponding X changes by ten units, holding all the other explanators fixed
   d. None of the above.

2. If the intercept term is excluded from the model:
   a. We have no assurance that the X´s and the residuals have no sample covariation
   b. The R^2 should be ignored
   c. The R^2 reported by econometric software packages are sometimes not between 0 and 1
   d. All the above

3. About Adjusted R^2 is correct:
   a. That is a goodness-of-fit measure that grows smaller when an additional regresor is included in the model if the new regresor does not increase R^2 by "enough".

   b. $\overline{R^2} = 1 - \left(\dfrac{\sum e_i^2 / (n-k-1)}{\sum y_i / (n-1)} \right)$

   c. That it cannot exceed 1, but it can be less than 0
   d. a. and c.
   e. All the above

4. One of the four important meanings of *linear* in econometrics is:
   a. Estimators cannot be linear in the dependent variable
   b. Regression models can be linear in the dependent and independent variables
   c. Regression models can be linear in their parameters
   d. Economic theory may not impose linear constraints on the parameters of a model
   e. b. and c.
   f. a. and d.
   g. All the above

5. Given the $H_0 : \beta_3 = 2\beta_1$ and the $H_A : \beta_3 \neq 2\beta_1$, it is possible to affirm:
   a. If the null hypothesis is not rejected the F statistic is close to 1
   b. If the null hypothesis is rejected the F statistic is close to 0
   c. If the null hypothesis is not rejected the F statistic is small

d.   None of the above.