Quiz # 6
Chapter 8
Suggested Answers
Econometrics 06216

Name:_____

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

1. In the regression model $Y_i = \alpha_0 + \alpha_1 DX_1 + \alpha_2 X_1 + \varepsilon_i$, where D is a dummy variable:
   a. The dummy modifies the slope of the regression line.
   b. The dummy modifies the intercept with axis X of the regression line.
   c. The dummy doesn't modify the graphic of the regression line.
   d. The dummy rotates some degrees the regression line.
   e. None of the above.

2. You have been hired to conduct an investigation about the econometrics' score for Asian and Female students. Your econometricians design the next model: $Y_i = \beta_0 + \beta_1 D_1 + \beta_2 D_2 + \varepsilon_i$, where D_1 takes the value of 1 if it's Asian and 0 otherwise, and D_2 takes the value of 1 if it's female and 0 otherwise. The model does allow you to:
   a. Determine the ceteris paribus difference in the average score for an Asian.
   b. Determine the ceteris paribus marginal change for a female.
   c. Determine the ceteris paribus difference in the average score for an Asian female.
   d. a. and b. are correct.
   e. All of the above are correct.

3. The expected value of a dummy variable is:
   a. 0
   b. 1
   c. Some number greater than 0.
   d. There is no expected value.
   e. None of the above

4. Which one of the following problems cannot be solved with dummy variables.
   a. Difference in econometrics' score, between man and woman.
   b. Difference in the behavior of financial market according to the hour and day.
   c. Difference in the preference of blacks and Caucasian for some kind of desserts.
   d. All of the above can be solved.
   e. None of the above can be solved.

5. Assume that you have certain evidence to think that the marginal change in the number of task accomplished ($Task_i$) for one additional hour of study (Stu_i) is different for the night-time hours. Which of the following models will you use to prove this? (Suppose that D_i is zero if the study is done in the morning, afternoon, or evening)
   a. $Task_i = \beta_0 + \beta_1 Stu_i + D_i \varepsilon_i$
   b. $Task_i = D\beta_0 + \beta_1 D_i Stu_i + \varepsilon_i$
   c. $Task_i = \beta_0 + \beta_1 D_i Stu_i + \beta_2 Stu_i + \varepsilon_i$
   d. All of the above.
   e. None of the above.