Quiz # 6
Chapter 6
Suggested Answers
Econometrics 06216

Name:

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

1. Which of the following regressions have dummy variables that imply a difference in the value of **Y (depended variable)** ceteris paribus?
    a. $Y_i = \alpha_0 + D_1\alpha_1 X_{1,i} + \alpha_2 D_{2,i} + \varepsilon_i$
    b. $Y_i = \alpha_0 + D_i\alpha_1 X_{1,i} + \alpha_2 X_{1,i} + \varepsilon_i$
    c. $Y_i = \alpha_0 + \alpha_1 X_{1,i} + \alpha_2 X_{2,i} + D_i + \varepsilon_i$
    d. None of the above.

2. Assume that you have certain evidence to think that the marginal change in the number of task accomplished for one additional hour of study is different for the night-time hours. Which of the following models will you use to prove this?
    a. $Task_i = \beta_0 + \beta_1 Stu_i + D\varepsilon_i$
    b. $Task_i = D\beta_0 + \beta_1 DStu_i + \varepsilon_i$
    c. $Task_i = \beta_0 + \beta_1 DStu_i + \beta_2 Stu_i + \varepsilon_i$
    d. All of the above.
    e. None of the above.

3. You have been hired to estimate the earnings differ between men and women, where D_1, i takes the value of 1 if individual i is a man and 0 otherwise and D_2, i takes the value of 1 if individual I is a woman and 0 otherwise. In order to avoid the "dummy variable trap", you will estimate the regression model:
    a. $Earnings_i = \lambda + \phi D_{1,i} + \kappa D_{2,i} + \varepsilon_i$
    b. $Earnings_i = \beta_0 + D_{1,i} + \beta_2 D_{2,i} + \varepsilon_i$
    c. $Earnings_i = \lambda + \kappa D_{2,i}$
    d. $Earnings_i = \alpha D_{1,i} + \beta D_{2,i} + \varepsilon_i$

4. If you have the following regression model $Y_i = \beta_0 + \beta_1 D_1 + \varepsilon_i$, where Y_i is the earnings and $D_{1,i}$ takes the value of 1 if the individual is a college graduate and 0 otherwise, β_1 is:
    a. The ceteris paribus change in Y_i.
    b. The difference in the average earnings for a college graduate.
    c. The percentage of college earnings.
    d. a and b
    e. None of the above.

5. About the Maximum Likelihood estimators, in order to do Hypothesis Testing with a very small sample, you can affirm that:
    a. The conclusions will be unreliable.
    b. The conclusions will be unreliable, because the estimator of the variance of the error is biased.
    c. The conclusions will be the same than in OLS estimation.
    d. None of the above.