EE 325
Quiz : Dummy variable (5 points)

Due date: April 28, 2020 by email. (Please convert to pdf file before you submit)

1. To study the rate of growth of population in Belize over the period 1970-1992, Mukherjee et al. estimated the following models:
   Model I:

$$\widehat{\ln(Pop)}_t = 4.73 + 0.024t$$
$$\text{t} = (781.25)\ (54.71)$$

   Model II:

$$\widehat{\ln(Pop)}_t = 4.77 + 0.015t - 0.075\ D_t + 0.011 D_t t$$
$$\text{t} = (2477.92)\ (34.01)\ \ (-17.03)\ \ (25.54)$$

   where Pop = population in millions, t = trend variable, $D_t = 1$ for observations beginning in 1978 and 0 before 1978, and ln stands for natural logarithm.

   a. In Model I, what is the rate of growth of Belize's population over the sample periods?

   b. Are the population growth rates statistically different pre- and post 1978? How do you know? If they are different, what are the growth rates for 19721977 and 1978-1992.