DE35: LABOUR ECONOMICS

EXAMINATION PAPER

September 2012

The examination will last for **THREE (3)** hours.

There are a total of **SEVEN (7)** questions on this examination paper and students are expected to answer all questions.

Part 1. Short questions

Students should answer all questions. Each question in this section counts for 8 marks.

1. Jill is planning the timing of her on-the-job training investments over the life cycle. What happens to Jill's OJT investments at every age if (a) Jill's discount rate increases and (b) the government passes legislation delaying the retirement age until age 70.

2. According to standard migration theory, how will skill selection (positive vs. negative) change on average as the distance between the source country and the destination country increases? Clearly state your assumptions regarding the distribution of skills and migration costs.

3. Evaluate the validity of the following claim: The increasing wage gap between highly educated and less educated workers will itself generate shifts in the labor market over the next decade. As a result of these responses, much of the "excess" gain currently accruing to highly educated workers will soon disappear.

4. Which one of Marshall's rules suggests why labor demand should be relatively inelastic for public school teachers and nurses? Explain.

5. Politicians who support the green movement often argue that it is profitable for firms to pursue a strategy that is "environmentally friendly" (for example, by building factories that do not pollute and are not noisy), because workers will be willing to work in environmentally friendly factories at a lower wage rate. Evaluate the validity of this claim.

TURN OVER

Part 2. Labour supply

Students should answer all questions. Marks available for each question are indicated in square brackets following each question.

6. Tao is a small farmer in Thailand. Like most rural households in this country, Tao's family grows rice. Part of the rice they consume themselves and part of it they sell in the market. From the proceeds they purchase meat. Assume that both rice and meat are normal goods.

(a) What happens to the consumption of rice and meat by Tao's household when the price of rice rises? What happens to the amount of rice sold in the market? *[5 marks]*

(b) Due to unusual weather conditions the current growing season has been particularly bad for Tao. His harvest fell far short of its normal level and is insufficient to feed his family, let alone to sell any surplus. Fortunately, Tao's uncle in Bangkok is sending some money so that Tao can buy additional rice and meat. How would the family's consumption of rice and meat react to a rise in the price of rice now? *[5 marks]*

(c) What does this question have to do with the standard model of labour supply? *[10 marks]*

(d) How would you estimate the standard model of labour supply if you would have data on hours worked per week and weekly earnings? *[10 marks]*

TURN OVER

Part 3. Schooling and on-the-job training

Students should answer all questions. Marks available for each question are indicated in square brackets following each question.

7. "The roots of education are bitter but the fruit is sweet" (Aristotle)

    (a) If you would be Jacob Mincer, would you agree with the quote above? Yes or no.
    [2.5 marks]

    (b) If you would be Jacob Mincer, what would be your interpretation of the coefficients on the education and experience variables in the following results table: *[7.5 marks]*

```
  Source |       SS       df       MS              Number of obs =    3010
---------+------------------------------           F(  6,  3003) =  204.93
   Model | 172.16563       6  28.6942716           Prob > F      =  0.0000
Residual | 420.476016   3003  .140018653           R-squared     =  0.2905
---------+------------------------------           Adj R-squared =  0.2891
   Total | 592.641646   3009  .196956346           Root MSE      =  .37419


-------------------------------------------------------------------------------
   Log(wage) |    Coef.    Std. Err.     t     P>|t|     [95% Conf. Interval]
-------------+-----------------------------------------------------------------
   education |   .074009    .0035054   21.11   0.000     .0671357    .0808823
  experience |  .0835958    .0066478   12.57   0.000     .0705612    .0966305
 experience² | -.0022409    .0003178   -7.05   0.000    -.0028641   -.0016177
       _cons |  4.733664    .0676026   70.02   0.000     4.601112    4.866216
-------------------------------------------------------------------------------
```

    (c) As an econometrician, what concerns would you have about the estimated return to education in the results table above? *[10 marks]*

    (d) If in the results table above experience is defined as potential experience (i.e. experience=age-education-6), the point estimates on experience could be capturing an age profile instead of an experience profile in wages. Explain why this is an important concern. Is there any way in which we could test which of these two hypotheses is more important in the data? *[10 marks]*

END OF PAPER