

YOUR NAME: _____

Section I (30 points) Questions 1-10 (3 points each)

Section II (50 points) Questions 11-12 (10 points each)

Questions 13-14 (15 points each)

Section III (20 points) Questions 15 (20 points each)

Section I. Define or explain the following terms (3 points each)

1. selection bias--

2. overtaking age--

3. intertemporal substitution hypothesis--

4. Malthusian model of fertility--

5. age/earnings profile--

6. hedonic equilibrium (with respect to injury risk)--

7. discounted present value of earnings--

8. Mincer schooling model--

9. internal rate of return--

10. division of labor within the household--

Section II. True, False or Uncertain Questions—you are graded for your explanation.

11. “If Joe has a higher wage than Jack at each and every age (though both wage profiles have the typical concave shape over the life cycle), then Joe will work more hours than Jack at each and every age.”

12. “If Joe and Jack have the same wage at each and every age (though both wage profiles have the typical concave shape over the life cycle) but Jack has more nonwage income than Joe, Jack will work fewer hours than Joe if leisure is a normal good.”

13. "While ability will affect the decision to go to college, the interest rate won't."

14. "If workers underestimate risk on the job (assume that this is true), legislation like the Occupational Health and Safety Act that effectively limits risk on the job will always make workers better off."

15. Suppose that we live in a signaling world, with two types of individuals found in equal proportions. Blue types have inherent marginal products of 3, and red types have inherent marginal products of 2 (they are blue and red only on the “inside,” employers cannot tell them apart). The cost of acquiring "E" years of schooling is $2E$ for blues, and $4E$ for the reds.

- a) What is the equilibrium level of schooling sufficient to sort out the reds from the blues?
- b) How does each group fare relative to a world in which there was no signaling?
- c) Is schooling socially “good” in this world? Why or why not?

16. Develop graphically the allocation of time within the household model, where time is divided into household production of goods time (H), market work time (N), and leisure time (L, where 'leisure' is the time input into the single household commodity that is produced).

a) Show what happens to all three types of time when there is an increase in non-wage income.

b) Show what happens to all three types of time when there is an increase in the market wage rate.