

**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. specific (human capital) training--

3. tournament model of wage structure--

4. cob-web model of labor market adjustment--

5. age/earnings profile--

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

7. moral hazard--

8. Mincer schooling model--

9. internal rate of return--

10. piece rate vs. time rate pay--

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

11. “With respect to wages, the impact of constrained hours of work (having a job that offers fewer hours of work than you prefer at the going wage rate at other available jobs) and uncertain layoffs (having a job in which the risk of being laid off was higher than at alternative jobs) is the same: constrained hours or higher layoff risk increases wages only if leisure is a normal good.”

12. "In the efficiency wage model, workers wage will always go up if there is an increase in demand for the firm's output."

13. Sara has just finished high school and narrowed her options down to two. She can become a stock analyst or concert pianist. Suppose that Sara lives two periods: in the first, she gets her education; in the second, she works. If Sara becomes a stock analyst, she will spend \$15,000 on tuition and books. She will then earn \$472,000 in the second period. If Sara becomes a concert pianist, it will cost her \$40,000 in the first period but she will earn \$500,000 in the second period.

- a. If Sara can borrow and lend money at 5 percent rate of interest, which career should she pursue if she is only interested in the monetary aspects of the career? Why?
- b. If Sara can borrow and lend money at 15 percent rate of interest, which career should she pursue if she is only interested in the monetary aspects of the career? Why?
- c. Suppose that the musical tuition is raised from \$40,000 to \$60,000. What career will Sara pursue if the rate of interest is 5 percent? Why.

14. Suppose that we live in a signaling world, with two types of individuals. Blue types have inherent marginal products of 2, and red types have inherent marginal products of 1 (they are blue and red only on the “inside,” employers cannot tell them apart). The cost of acquiring "E" years of schooling is E for blues, and 3E 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) Suppose that the government steps in and subsidizes Red types (low-ability) for the higher costs they incur to get additional schooling, so that everyone now faces the same costs of schooling. Will the equilibrium change? How and why?

15. (This is worth 20 points). Discuss some of the circumstances (alternative models), but NOT THE SIGNALING MODEL, where the Mincer model breaks down. That is, why isn't the coefficient on the schooling variable not necessarily a good measure of the rate of return to schooling.