

Place your name on the back of this sheet of paper and nowhere else. Staple your answers face up on the front of this sheet of paper. Failure to follow these directions will cost you 1 point. Your assignment will be typed, except graphs can be drawn by hand and mathematical equations can be done by hand. Failure to type it will cost you 10 points. If you use double-sided printing or print on the back of scrap paper, I will give you one additional point.

- 1) (20 points) Draw the supply and demand for workers where the output is monopolistically competitive. On it, find the wage rate, the value of the labor, and the economic rent. Explain how you found each one.
- 2) (20 points) What is meant by a *monopsony in the factor markets*? Draw the diagram which can be used to find the equilibrium wage. Explain why each of the lines has the label you gave it and explain how you found the amount of labor and the wage rate.
- 3) (25 points) Draw the supply and demand for labor where the supplier is a union with monopoly power. Explain why the lines look as drawn. Find the amount of union labor hired and the wage paid. Explain how you found them. Given this, what will happen to the wages of the non-union workers? Explain your logic.
- 4) (15 points) Draw the supply and demand for land. Why does it look like that?
- 5) (5 points) Suppose you are saving for retirement. Assume you get a 6% return on your IRA. (If it is in stocks, that is slightly low.) If your annual income is \$50,000.00, you need to have saved up \$1 million to keep your standard of living. If you save for 40 years, you will need to save \$502.14 per month. If you wait 10 years and only save for 30 years, you will need to save \$1,070.05 per month. What are the two economic reasons you need to save more than twice as much? **(Note, this implies you should start saving for retirement today!)**
- 6) (15 points) Suppose you are debating between getting a job right after graduation and going for an MBA. If you get a job at graduation, you will earn \$30,000 for the first year and your income will grow 3% per year until you retire after 45 years. If you go for an MBA, it will cost you \$25,000 each of the two years, but you will earn \$45,000 for the first year. The salary will also increase 3% each year until you retire after 43 years. (Two fewer years of working because of the schooling.) Suppose you want a 4% return on your money. Set up the calculations which could be used to determine whether or not the education is worth it. Explain how you chose everything, including the value for the last exponent.