

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 10 points. 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) (15 points) Explain  $Y=A * F(K^{\alpha} N^{\beta})$ . In addition to explaining A, K, and N, give me estimates for  $\alpha$  and  $\beta$  and explain those values make sense.
- 2) (25 points) Draw the production function as a function of capital and beside it, the production function as a function of labor. Illustrate the effects of an increase in the capital stock. Explain why the graphs changed as drawn.
- 3) (20 points) Draw the real labor supply/demand diagram. Illustrate the effects of an increase in wealth. Explain why the curve(s) moved as drawn. What happens to the real wage rate and the level of employment?
- 4) (20 points) Draw the real labor supply/demand diagram. Illustrate the effects of an increase in the amount of capital. Explain why the curve(s) moved as drawn. What happens to the real wage rate and the level of employment?
- 5) (5 points) One version of Okun's Law has GDP growing 3% when the unemployment rate does not change. How does that occur?
- 6) (15 points) Normally an increase in the unemployment rate is an indication that the GDP could be going down, i.e. it is a bad omen. However, an increase in the unemployment rate can be an indicator the economy is doing better. Explain how that can be.