

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 $\Delta Y/Y = 3 - 2\Delta u$. You can treat $\Delta Y/Y$ as one variable after you define it. Also explain why the 3 is greater than 0 and why the 2 is greater than 1.
- 2) (25 points) Draw the production function with capital on the horizontal axis and beside it, the production function with labor on the horizontal axis. Illustrate the effects of an increase in the amount of labor on both graphs. Explain why the graphs changed as drawn.
- 3) (15 points) Draw the labor supply/demand diagram. Illustrate the effects of an increase in the income tax now. Explain why the curve(s) moved as drawn. What happens to the amount of labor hired and the real wage rate?
- 4) (15 points) There are two effects of an increase in the wage rate on the quantity of labor supplied. Explain what they are and how they cause the labor supply curve to take its shape. Given the way we draw the labor supply curve, which is the stronger effect? Explain your logic.
- 5) (10 points each) For each of the events, determine what happens to the laborforce participation rate and the unemployment rate. Explain your logic. Which type of unemployment is affected? Explain your logic.
 - A) John quits his job because he dislikes his boss.
 - B) Amy got laid off in 2008.
 - C) David has been unemployed for so long, that he quits looking for a job.