

Place your name on the back of this sheet of paper and nowhere else. Staple your answers 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) (15 points) Explain  $\frac{\Delta Y}{Y} = 3 - 2\Delta u$  . Explain the  $\Delta u$  and what the 3 represents.

2) (35 points) Illustrate an improvement in technology on the production function as a function of labor and on the supply and demand for labor. Explain why the curve(s) moved as drawn. What happens to the amount of labor, the real wage rate, and the GDP. State how you see that on the graphs.

3) (20 points) Illustrate an increase in the future income level on the supply and demand for labor. Explain why the curve(s) moved as drawn. What happens to the real wage rate and the level of employment?

4) (10 points each) For each of the following events, determine what happens to the unemployment rate and the labor force participation rate. Explain your logic and mention which category of unemployment changed.

A) A house husband starts looking for a job.

B) A former steel worker gets so tired of looking for a job that he quits looking.

C) A lifeguard for a lake when the fall arrives.