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) (20 points) Explain the equation below. You can treat uc/(1-τ) as one variable after you define

it.
$$\frac{uc}{1-\tau} = \frac{(r+d)p_K}{1-\tau}$$

- 2) (20 points) Draw the S/I diagram. Illustrate the effects of an increase in government spending if Ricardian Equivalence does not hold. Explain why the curve(s) moved as drawn. What happens to the levels of saving, investment and interest rate?
- 3) (20 points) Draw the S/I diagram. Illustrate the effects of the stock market crashing like it did from Dec. 2007 to March of 2009 it lost half of its value. Explain why the curve(s) moved as drawn. What happens to the levels of saving, investment and interest rate?
- 4) (20 points) Draw the MPK f /uc $_K$ diagram. Illustrate the effects of the One Big Beautiful Bill as described by https://taxfoundation.org/blog/one-big-beautiful-bill-tax-us-manufacturing/. Explain why the curve(s) moved as drawn. What happens to the user costs, desired capital, and investment? Briefly state how you reached each conclusion.
- 5) (20 points) Draw the MPK^f/uc_K diagram. Illustrate the effects of increased depreciation of buildings caused by climate change. Explain why the curve(s) moved as drawn. What happens to the user costs, desired capital, and investment? Briefly state how you reached each conclusion.