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) (10 points each) For each event, explain how it affects M1, M2, and M3.
A) You take $\$ 100$ cash and deposit into a savings account.
B) You take a loan for $\$ 5000$.
C) You take $\$ 4000$ from an item in M3 and put it in a checking account.
2) (20 points) What is meant by financial intermediation? Why do we need financial intermediaries?
3) (15 points) It is said that inflation is a tax on money. How does it "tax" money and how does the government benefit from it?
4) ( 15 points) If the nominal interest rate is $10 \%$, the tax rate is $20 \%$, and the inflation rate is $5 \%$, then what is the real net interest rate? Show all calculations.
5) (20 points) Explain why we multiply the nominal interest rate by 1-t and why we adjust for inflation twice.
