**ECO 305: Intermediate Macroeconomics**          Name: _____
**Practice Exam 2**


1. (7 points) Companies to engage in cooperative research and development activities which leads to new technology. Describe and illustrate the long-run impact in the context of a Solow growth model.


2. (7 points) Suppose people's preferences change to start having children later in life and fewer children. Describe and illustrate the long-run impact on output per worker.


3. (7 points) Why do the most developed countries in the world experience low growth rates while some lesser developed countries experienced much higher growth rates?

4. The ratio of government debt to GDP in Japan is the largest in the world at approximately 245%. A recent report from the International Monetary Fund (IMF) concluded that Japan's debt is unsustainable under current policies, and that it should put its debt to GDP ratio on a downward path.

  (a) (7 points) Discuss what the IMF's conclusions imply about Japan's fiscal policies in relation to other macroeconomic variables.

  (b) (7 points) Is it sustainable for government of any country borrow every period forever, never running surpluses to pay down balances? Discuss under what situations this is possible and when it is not.

5. (12 points) Suppose the government enacts tax cuts in the current period that will be offset with credible and equal (in the present value sense) cuts in future government spending. In the context of a dynamic general equilibrium model, describe and illustrate the general equilibrium effects on wages, employment, production, interest rates, consumption, and investment.

6. (12 points) In a two-period dynamic general equilibrium model with utility maximizing consumers and profit maximizing producers, describe and illustrate the impact of a permanent in government spending with no change to current taxes. Describe and illustrate the impact on the general equilibrium outcomes for consumption, investment, real GDP, and the real interest rate.

7. Answer the following questions concerning Ricardian equivalence:

   (a) (7 points) What is it? Describe in the context of a cut in taxes and use equations and/or a diagrams in your answer.

   (b) (7 points) Describe four of the assumptions required for Ricardian equivalence to hold.

   (c) (7 points) The assumptions for Ricardian equivalence never hold. Is Ricardian equivalence a useful economic theory? Why or why not?

8. Suppose there is an increase in the real interest rate. Answer the following questions regarding consumer's responses in the context of a two-period endowment model.

    (a) (7 points) Describe and illustrate the impact on current consumption, saving, and future consumption for a consumer that is a saver.

    (b) (7 points) Describe and illustrate the impact on current consumption, saving, and future consumption for a consumer that is a borrower.

    (c) (6 points) Which effect on current consumption in (a) and (b) is larger? Explain intuitively why this is so.