ECO 305: Intermediate Macroeconomics **Name**: ______________________

Prof. James Murray - Spring 2015

Practice Exam

Directions: This exam has six problems, each on its own page. Answer ONLY FOUR OF THEM. Whichever four you want. Each page is worth 25 points.

1. The ratio of U.S. Government debt to GDP is reaching near record levels. In 2013, the debt-to-GDP ratio was 104.5%. Over the last decade, the government has run a primary deficit every year, and it is projected to continue doing so for several decades, and possibly indefinitely. Is this sustainable? Explain.

2. Suppose Congress passed and the President of the United States just signed the American Spending on Wasteful Crap Act (ASWCA) which calls for an increase in federal expenditures on stuff that nobody wants. The Act dictates that the increase in expenditures is not immediate, but will begin in one year. The act does not include a plan for financing the additional expenditures, but everyone is running for re-election, so they made sure that no change in taxes will occur in the current period. Describe and illustrate the general equilibrium effects of this news on wages, employment, production, interest rates, consumption, and investment.

3. Answer the following questions concerning Ricardian equivalence:

   (a) What is it? Describe in the context of a cut in taxes and use an equation and/or a diagram in your answer.

   (b) Describe three of the assumptions required for it to hold.

   (c) The assumptions for Ricardian equivalence never hold. Why is it a useful theory?

4. Suppose the Federal Reserve conducts an action which causes an increase in the real interest rate. In the scenarios below, use an intertemporal representative agent model with fixed levels of income to describe and illustrate consumers' utility maximizing choices for current consumption, future consumption, saving, and total welfare. If income and substitution effects move in opposite directions, assume that substitution effects dominate.

   (a) Describe your answer for consumers that are borrowers. Derive and draw the resulting (present-period) consumption demand curve (a curve that describes how optimal choices for current consumption depend on the interest rate).

   (b) Describe your answer for consumers that are savers. Derive and draw the resulting (present-period) consumption demand curve.

   (c) Which consumption demand curve on this page is more interest-elastic? Why?

5. Suppose an economy is in equilibrium when there is an increase in government spending which is accompanied with an offsetting decrease in future government spending, so as to keep consumers' lifetime tax liability unchanged.

   (a) Describe and illustrate the impact in a dynamic general equilibrium model with perfectly inelastic labor supply and *flexible* wages. Include in your description and illustrations for the impact on wages, interest rate, price level, employment, unemployment, real GDP, consumption, and investment.

   (b) Describe and illustrate the impact in a dynamic general equilibrium model with perfectly inelastic labor supply and *sticky* wages. Include in your description and illustrations for the impact on wages, interest rate, price level, employment, unemployment, real GDP, consumption, and investment. How do your answers compare with the previous question?

6. Suppose an economy is experiencing a recession with high unemployment and real GDP below potential GDP.

   (a) Illustrate this situation in a dynamic general equilibrium model with perfectly elastic labor supply and sticky wages. Describe and illustrate a monetary policy to improve the economic situation. Describe and illustrate the impact on wages, interest rate, price level, employment, unemployment, real GDP, consumption, and investment.

   (b) Illustrate again the poor economic situation as you did in part (a). Describe and illustrate a fiscal policy (government spending or taxes) to improve the economic situation. Be complete about your policy prescription, keeping in mind that the government faces an intertemporal budget constraint. Describe and illustrate the impact on wages, interest rate, price level, employment, unemployment, real GDP, consumption, and investment.