ECON 2105H
Dr. Lastrapes

For SA questions, provide a short answer in the space provided. For TF questions, answer true or false, then explain your reasoning. **There are 9 questions on this exam;** all are weighted evenly. Write clearly and legibly.

1. (SA) Suppose that, for the US during the year, GDP is $130,000, consumption is $90,000, gross domestic investment is $25,000 (of which inventory investment is –5000), tax revenues are $15,000, and the government budget deficit is $5000. Given this information, use the appropriate circular flow identities to compute the following flow quantities.
   a) Government spending in the US: $20,000 (Deficit + tax revenues)
   b) Borrowing by the US from the rest of the world: $5,000 (-NX; NX = Y – C – I – G )
   c) Private saving by households: $25,000 (Y – C – T)
   d) Fixed and residential investment: $30,000 (I - inventory investment)

2. (TF) Acme Widget Company produced $1.5 million worth of widgets during the year 2000, of which $1 million worth was sold to households, $200,000 worth was sold to other firms, and $300,000 worth was added to Acme’s inventories. During 2000, Acme’s production contributed $1.2 million to the country’s GDP.
   False. They contributed $1.5 million to GDP. All that matters is production, not sales.

3. (TF) Suppose that nominal GDP is $5000 in 1990 and $5500 in 1991. From this information, we can infer that real production in the economy grew by 10% from 1990 to 1991.
   False. While nominal output does indeed grow by 10%, real GDP is a better measure of the growth in actual production. The 10% growth in nominal GDP could reflect inflation, not growth in production. If real GDP had grown 10%, then we could infer that real production grew by 10%.

4. (SA) For each of the following, explain the likely effect on Bob’s desired consumption and saving relative to his current income (holding the real interest rate constant):
   a) Bob is informed by his company that, although his current salary will not change, he will not receive the big raise he expected next year.
   b) The value of Bob’s retirement assets rises dramatically.
   a) C/Y will fall; S/Y will rise.
   b) C/Y will rise; S/Y will fall.
5. (TF) Be sure to explain your answer, whether true or false. In long-run equilibrium:
   a) a reduction in foreign demand for US exports, ceteris paribus, will increase the share of spending on consumption in the US;

   True. As desired exports fall, \( NX \) falls, and the desired spending curve will shift to the left. This will put downward pressure on the real interest rate which will lead to an increase in the consumption share.

   b) an increase in the federal government’s expenditure share, ceteris paribus, will decrease households’ private saving rate.

   False. As the government share increases, the real interest rate will rise, causing a decrease in the consumption share and a rise in the saving rate.

6. (SA) An economist writes an editorial in the newspaper claiming that reductions in federal government tax revenues, holding the level of government spending equal, will reduce investment and thus economic growth in the long-run. Under what conditions is she likely to be right, and under what conditions is she likely to be wrong? Explain.

   Under the conventional view of tax finance, the reduction in tax revenues will increase household’s disposable income, which will lead to an initial increase in desired consumption and saving. This will cause real interest rates to rise, and thus investment to fall, reducing growth. Therefore, she will be right if the tax reduction leads to increased consumption spending.

   On the other hand, under the Ricardian view, the reduction in tax revenues will have no effect on desired consumption, the real interest rate, or the investment and growth. In this case, households respond to the tax reduction by increasing saving dollar for dollar with the tax rebate, in order to be able to pay the expected higher taxes in the future. Since household saving rises by the same amount that government saving falls, national saving is unaffected, and there will be no effect on the real interest rate and investment/growth.

7. (SA) Benny, a computer programmer, loses his job because of the recession in the overall economy. Although he actively seeks a new job, he is unable to find work and so files for unemployment compensation. How does Benny’s job loss affect the following (ignoring the fact that, whatever effect there might be, it will be small)?
   a) The unemployment rate

   Benny will be classified as unemployed and thus in the labor force. The unemployment rate will rise.

   b) The natural rate of unemployment

   Benny has been laid off due to a recession, so his job loss contributes to cyclical unemployment. Therefore, the natural rate of unemployment will not change.

   c) The labor force participation rate

   Since Benny remains in the labor force and the working age population, the LFPR will not change.
8. (SA) The income tax can be partly be thought of as a tax on households that supply labor. Suppose the government increases income tax rates. What would be the likely effect on real wages and employment in the aggregate economy in the long-run?

I will accept two answers: 1) The increase in the tax rate in effect increases the marginal cost of supplying labor (the value of leisure at the margin plus the goods given up to pay the tax), so the labor supply curve will shift to the left. In this case, real wages rise and employment falls. Or, 2) if households feel poorer because of the tax, they may choose to supply more labor to ensure a higher income; this would case real wages to fall and employment to rise.

Most economists would think the first answer is the most likely to characterize the aggregate labor market.

9. (TF) During the Great Depression, when the unemployment rate was very high, some argued that the government should require firms to increase wages, thereby enhancing workers' purchasing power and thus creating jobs. According to the long-run model of the labor market, such a policy is indeed likely to reduce cyclical unemployment.

False. Just the opposite would occur - a higher wage will increase the supply of labor while reducing the demand for labor. Cyclical unemployment would increase. The fallacy of this "high-wage doctrine," which really was proposed during the 1930's, is now well-known.