ECO204 Macroeconomics - I

End-Semester Re-examination — Maximum Duration: 3 hour
5 July 2019, Friday — Total Marks: 70

Answer all questions.

1. Use the neoclassical theory of distribution to predict the impact on the real wage and the real rental price of capital of each of the following events: **[3 x 5 = 15]**
   (a) A wave of immigration increases the labor force.
   (b) An earthquake destroys some of the capital stock.
   (c) A technological advance improves the production function.

2. Please write whether the following statements are true or false giving reason for your answer.**[3 x 5 = 15]**
   (a) Taylor's rule and the Taylor's principle are used synonymously.
   (b) A rise in the revenue tax rate leads to an increase in the desired level of capital and a decline in investment.
   (c) Tobins q is the ratio of Replacement Cost of Installed Capital to the Market Value of Firm.

3. Consider an economy described by the following equations: **[20]**

   $Y = C + I + G;$
   $Y = 5,000$
   $G = 1,000$
   $T = 1,000$
   $C = 250 + 0.75(Y - T)$
   $I = 1,000 - 50 * r$

   (a) In this economy, compute private saving, public saving, and national saving. [2+2+2]
   (b) Find the equilibrium interest rate.[3]
   (c) Now suppose that G rises to 1,250. Compute private saving, public saving, and national saving. [2+2+2]
   (d) Find the new equilibrium interest rate. [3]
   (e) If consumption depended on the interest rate, how would that affect your results - Comment. [2]

4. Suppose that the money demand function is $(\frac{M}{P})^d = 1,000 - 100r$, where r is the interest rate in percent. The money supply M is 1,000 and the price level P is 2. **[15]**
   (a) Graph the supply and demand for real money balances. [3+3]
   (b) What is the equilibrium interest rate? [3]

(c) Assume that the price level is fixed. What happens to the equilibrium interest rate if the supply of money is raised from 1,000 to 1,200? [3]

(d) If the Fed wishes to raise the interest rate to 7 percent, what money supply should it set? [3]

5. Suppose that the money demand function takes the form $(M/P)^d = L(i, Y) = Y/(5i)$ **[5]**

   (a) If output grows at rate g, at what rate will the demand for real balances grow (assuming constant nominal interest rates)? [2]

   (b) What is the velocity of money in this economy? [2]

   (c) If inflation and nominal interest rates are constant, at what rate, if any, will velocity grow? [1]