ECON 3010 Intermediate Macroeconomics –Exam #2
NAME _____

Multiple Choice Questions. (25 points; 2.5 pts each)

#1. To increase the money supply, the Federal Reserve:

   a. buys government bonds.
   b. sells government bonds.
   c. buys corporate stocks.
   d. sells corporate stocks.

#2. Demand deposits are funds held in:

   a. currency.
   b. certificates of deposit.
   c. checking accounts.
   d. money markets.

#3. If there are 100 transactions in a year and the average value of each transaction is $10, then if there is $200 of money in the economy, transactions velocity is _____ times per year.

   a. 0.2
   b. 2
   c. 5
   d. 10

#4. In the long run, according to the quantity theory of money and the classical macroeconomic theory, if velocity is constant, then _____ determines real GDP and _____ determines nominal GDP.

   a. the productive capability of the economy; the money supply
   b. the money supply; the productive capability of the economy
   c. velocity; the money supply
   d. the money supply; velocity

#5. The *ex ante* real interest rate is equal to the nominal interest rate:

   a. minus the inflation rate.
   b. plus the inflation rate.
   c. minus the expected inflation rate.
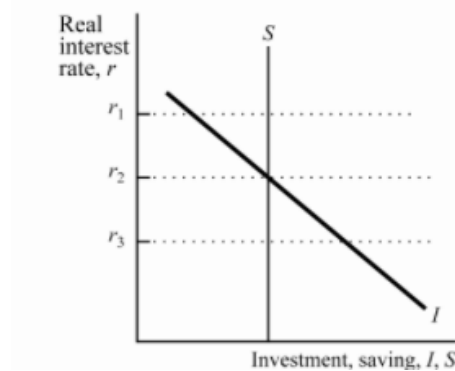   d. plus the expected inflation rate.

#6. In the case of an unanticipated inflation:

    a.   creditors are hurt because they get less than they expected in real terms.
    b.   creditors gain because they get more than they contracted for in nominal terms.
    c.   debtors do not gain because they pay exactly what they contracted for in nominal terms.
    d.   debtors are hurt because they pay more than they contracted for in nominal terms.

#7. Use the graph to the right to answer the question. In a small open economy, if the world interest rate is r_1, then the economy has:

    a.   a trade surplus.
    b.   balanced trade.
    c.   a trade deficit.
    d.   negative capital outflows.

Exhibit: Saving and Investment in a Small Open Economy

Real interest rate, r

r_1

r_2

r_3

S

I

Investment, saving, I, S

#8. In a small open economy, when the government reduces national saving, the equilibrium real exchange rate:

    a.   rises and net exports fall.
    b.   rises and net exports rise.
    c.   falls and net exports fall.
    d.   falls and net exports rise.

#9. *All* of the following are causes of structural unemployment *except*:

    a.   minimum-wage laws.
    b.   the monopoly power of unions.
    c.   unemployment insurance.
    d.   efficiency wages.

#10. If the rate of separation (s) is 0.02 and the rate of job finding (f) is 0.08 but the current unemployment rate is 0.10, then the current unemployment rate is _____ the equilibrium rate, and in the next period it will move _____ the equilibrium rate.

    a.   above; toward
    b.   above; away from
    c.   below; toward
    d.   below; away from

Problem Solving / Essay Questions. (75 points)

#11. (40 pts) Assume that currency (C) is $20 billion and reserves (R) are $10 billion, the reserve-deposit ratio (rr) is 0.1, and the currency-deposit ratio (cr) is 0.2. The current price level is $P = 120$.

(a) (10 pts) What is the monetary base? What is the amount of demand deposits? What is the money multiplier? What is the money supply? Show your work.

(b) (10 pts) The central bank wishes to increase the money supply by 10%. Calculate the dollar amount of open market operations (i.e., increase in the monetary base) necessary to meet the target. Describe in words how the FOMC would do this.

(c) (10 pts) Next assume that the central bank wanted to meet the money supply target by lowering the reserve requirement (*rr*) rather than increasing the base. How much would they need to lower *rr*? Which, open-market operations or varying the reserve requirement, is a better tool? Defend your answer.

(d) (10 pts) Assume the economy is booming and annualized real GDP growth is 5%, but technological advances in banking have reduced increased the velocity of money by 1%. If the central bank increases the money supply by 10% (as in parts (b) and (c)), what will be the resulting inflation rate and new price level?

#12. (20 pts) Consider the following Neoclassical model of the economy, where the domestic interest rate r and the world interest rate r_* are in percentage terms. Show all your work.

Supply	Demand
$Y = 1000$	$C = 50 + 0.7(Y - T)$
$NX = 100 - 100\epsilon$	$I = 200 - 10r$
$r_* = 5\%$	$G = 200, T = 100$

(a) (10 pts) Find the equilibrium real interest rate in a <u>closed</u> economy. Show the equilibrium real interest rate on a saving-investment diagram with r measured on the vertical axis. Now assume the small economy opens up to trade. Calculate the real exchange rate, trade balance and net capital outflows. Show the trade balance and net capital outflows on the saving-investment diagram.

(b) (10 pts) Assume that fiscal policymakers enact a government spending reduction to balance the budget. If the domestic price level is $P = 120$ and the foreign price level is $P_* = 100$, find the new real exchange rate, nominal exchange rate, trade balance and net capital outflows. Redraw the diagram from part (a) to show the changes.

False Statements (15 pts). Explain why each statement below is false.

1) (3 pts) Tax cuts by President Trump will not impact the trade balance.

2) (3 pts) The primary long-run social cost of inflation is that erodes the purchasing power of income.

3) (3 pts) Minimum wage laws have no impact on the unemployment rate.

4) (3 pts) The Fed desires 2% inflation in order to reduce the real value of government debt.

5) (3 pts) Quantitative easing is the school of thought whereby tax cuts stimulate the economy and increase total tax revenues.