

ECON 3010 Intermediate Macroeconomics
Exam #2

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

#1. In a 100-percent-reserve banking system, banks:

- A) can increase the money supply.
- B) can decrease the money supply.
- C) can either increase or decrease the money supply.
- D) cannot affect the money supply.

#2. In the United States, the money supply is determined:

- A) only by the Fed.
- B) only by the behavior of individuals who hold money and of banks in which money is held.
- C) jointly by the Fed and by the behavior of individuals who hold money and of banks in which money is held.
- D) according to a constant-growth-rate rule.

#3. When the Federal Reserve conducts an open-market purchase, it buys bonds from the:

- A) public.
- B) U.S. Treasury.
- C) Internal Revenue Service.
- D) International Monetary Fund.

#4. If the money supply increases 12 percent, velocity decreases 4 percent, and the price level increases 5 percent, then the change in real GDP must be _____ percent.

- A) 3
- B) 4
- C) 9
- D) 11

#5. In a small open economy, if the world interest rate increases, then the supply of domestic currency on the foreign exchange market will _____ and the real exchange rate will _____, holding all else constant.

- A) decrease; decrease
- B) decrease; increase
- C) increase; decrease
- D) increase; increase

#6. Protectionist policies implemented in a small open economy with a trade deficit have the effect of _____ the trade deficit and _____ the quantity of imports and exports.

- A) decreasing; decreasing
- B) not changing; decreasing
- C) decreasing; not changing
- D) not changing; not changing

#7. In a small, open economy if net exports are negative, then:

- A) domestic spending is greater than output.
- B) saving is greater than investment.
- C) imports are less than exports.
- D) net capital outflows are positive.

#8. The unemployment resulting when real wages are held above equilibrium is called _____ unemployment, while the unemployment that occurs as workers search for a job that best suits their skills is called _____ unemployment.

- A) efficiency; inefficiency
- B) efficiency; structural
- C) frictional; efficiency
- D) structural; frictional

#9. If wage rigidity holds the real wage above the equilibrium level, an increase in the supply of labor will _____ the number unemployed.

- A) increase
- B) decrease
- C) not change
- D) possibly increase, decrease, or leave unchanged

#10. If the rate of separation is 0.02 and the rate of job finding 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 / True-False. (75 points)

#11. (60 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, Money, and Prices	Demand and Money
$Y = F(K, L) = \sqrt{KL}$	$C = 75 + \left(\frac{1}{2}\right)(Y - T)$
$K = 900; L = 100$	$I = 80 - 4r$
$r_* = 5\%$	$G = 60, T = 50$
$P = 10; P_* = 11; M = 1000$	$NX = 20 - 20\epsilon$

(a) (10 pts) What is the level of real GDP in the economy? In a closed economy, find the equilibrium real interest rate, national saving, and investment. Show the loanable funds equilibrium in a diagram.

(b) (10 pts) Calculate the trade balance and net capital outflow for the small open economy. Show the trade balance on a saving-investment diagram with r measured on the vertical axis.

(c) (10 pts) Calculate nominal GDP in the domestic country and the velocity of money. Provide an interpretation for the velocity of money. What are the values for the real and nominal exchange rates? Contrast the two exchange rate, discussing how to interpret each.

(d) (10 pts) Assume the reserve-to-deposit ratio (rr) is 0.1 and the currency-to-deposit ratio (cr) is 0.2. How much does the Federal Reserve need to increase the monetary base to attain a money supply equal to $M = 1050$? Explain how the FOMC accomplishes this objective.

- (e) (10 pts) Consider the following scenario. President Trump is interested in protecting the domestic auto industry and enacts international trade legislation that shifts the net export schedule to $NX = 40 - 20\epsilon$. What impact does the legislation have on the real exchange rate and the trade balance? Show your results in a diagram with ϵ on the vertical axis and write a short paragraph explaining the results.
- (f) (10 pts) Now assume that President Trump enacts legislation to balance the federal government's budget by reducing spending. Show the impact on the real exchange rate and trade balance in a diagram (using our model of a small open economy). How does the nominal exchange rate change?

#13. (15 pts) True or False.

- (a) (3 pts) “The natural rate of unemployment in the U.S. has been constant since World War II at approximately 5%.”

- (b) (3 pts) “The primary interest rate target of the FOMC is 30-year mortgage rates.”

- (c) (3 pts) “Ex ante real interest rates can be negative.”

- (d) (3 pts) “China is the biggest debtor nation in the world.”

- (e) (3 pts) “If goods and services cost exactly the same in another country, then the real exchange rate between the U.S. and that country should equal one.”

SCRATCH PAPER.