Econ 100B MT 1 questions
Fall 2010
100 points, 75 minutes

Question 1 (5 points, 3 minutes)
How is the following activity recorded in the expenditure accounts for U.S. GDP?

A California resident purchases a $20,000 car. $8,000 of that car's parts were imported from Japan, and then the car was assembled in California.

Question 2 (5 points, 4 minutes)

- In Year A, real earnings relative to the price of stock are 12 percent and real interest rates are 4 percent.
- In Year B, real earnings relative to the price of stock are 7 percent and real interest rates are 4 percent.

How is it possible for the stock market to be in equilibrium in both Year A and Year B?

Question 3 (13 points total; 10 minutes total)
a. (3 points) Within 1 percentage point, what is the unemployment rate?
b. (5 points) Will real GDP growth lower the unemployment rate in the short run? Explain.
c. (5 points) What type of equation (identity, equilibrium, or behavioral) is $r = i - \pi^e$? Briefly defend your answer.

Question 4 (20 points total; 15 minutes total)
Suppose the following parameters describe an economy

$n = 1$ percent
$g = 3$ percent
$\delta = 2$ percent
$s = 24$ percent
$\alpha = 1/3$
current value of $E = 4{,}000$

a. (9 points) What are the balanced growth equilibrium values of K/L, Y/L, and K/Y? *You must write down the formulas you are using, then plug in the values, then simplify – or no credit.* ***Put a box around your answer.***

b. (4 points) At the right, draw a graph that shows the equilibrium position for this economy. Label everything clearly.

c. (7 points) What does it mean to assume n is **exo**genous? Give an example of how we could make n **endo**genous.

Question 5 (20 points total; 15 minutes total)
Haiti is one of the poorest countries on earth. It has had no growth in living standards for generations. A devastating earthquake hit Haiti in January 2010. Buildings, roads, and bridges collapsed. Most of the infrastructure was destroyed. About 2 percent of the population died.

a. (8 points) What is the immediate effect of the earthquake on Haiti's standard of living? Explain. Supplement your answer with a graph. Label the pre-earthquake values with subscript 0. Label the immediate post-earthquake values with subscript 1.

b. (4 points) Assume the earthquake had no effect on Haiti's saving rate, population growth rate, depreciation rate, and efficiency growth rate. What would be the long-run effect of the earthquake on Haiti's standard of living? Briefly explain.

c. (8 points) Now suppose instead that Haiti rebuilds its infrastructure and buildings to higher standards so they last longer and are more efficient. In this case, what will happen to Haiti's standard of living? Explain. Be sure your explanation refers to the balanced-growth equilibrium equation.

Question 6 (13 points total; 10 minutes total)
Answer this question based on the book *Animal Spirits*.

a. (5 points) Define what Akerlof & Shiller mean by "corruption and bad faith."

b. (8 points) What is one of the illustrations of this aspect of animal spirits presented in the book? Briefly discuss the illustration. An answer that makes stuff up gets fewer points than an answer which honestly states "I didn't read the book."

Question 7 (9 points; 7 minutes)
Suppose the production function takes the shape shown at the right. What can you say about balanced growth equilibrium and adjustment to equilibrium? How does this production function explain divergence?

Question 8 (15 points total; 11 minutes total)
Consider this argument: "I don't care whether government spending is to build and maintain new, efficient transportation and communication networks, or to hire more teachers, or to increase payments to unemployed people. Increased government spending lowers the standard of living in the long run."

a. (5 points) Prof. Olney presented a 5-step method for critiquing arguments. Simply list each of the 5 steps in the method.

b. (10 points) Follow that method and critique the argument above. Your answer should reflect your understanding of the long-run growth model.