ECO 120: Global Macroeconomics   **Your Name:** _____
In-class Exercise: Exam 3

Directions: Work in groups of up to four people and answer the following questions. All papers will be collected, but only one member's paper will be randomly selected and graded and all members of the group will receive the same grade.

By signing below, you agree that the following work represents the efforts of everyone in the group, and you are willing to accept as your own grade for the group project the grade earned from this representation of your group's work. Every member must agree to these terms in order to earn a non-zero grade for this assignment.

_____	_____	_____
Signature Group Member 1	Print Name	Date
_____	_____	_____
Signature Group Member 2	Print Name	Date
_____	_____	_____
Signature Group Member 3	Print Name	Date
_____	_____	_____
Signature Group Member 4	Print Name	Date

1. Sue sells sea shells on the sea shore for 25 cents each, and the number of sea shells she can collect per week depends on the quantity of labor hired as follows,

Hours of Labor	0	10	20	30	40	50
Quantity of Shells	0	500	900	1200	1400	1500

   (a) (7 points) Compute the marginal product of labor if Sue sells 1,200 shells.

   (b) (7 points) Suppose the equilibrium wage for shell collectors in the economy is $5 per hour. How many hours of labor will Sue hire? How many sells will she sell? How much total revenue will she make?

   (c) (7 points) Suppose the American United Sea Shore Sea Shell Collectors Collective Labor Union of America (AUSSSSCCLUA) reached a collective bargaining agreement with Sue to increase the wage to $7.50 per hour. To maximize profits, will Sue increase employment, decrease employment, or leave employment the same? What will be the new level of employment?

(d) (7 points) Suppose an oil spill just off shore makes it more difficult for Sue's employees to find sea shells on the sea shore. Illustrate and describe the impact on the labor market. What will happen to wages and employment in equilibrium?

2. Suppose for each \$1 increase in income, savings increases by 5 cents and imports increase by 15 cents. Suppose recent volatile economic events convince people to permanently increase their savings as a precautionary measure.

(a) (7 points) Suppose the immediate effect is an increase in saving equal to \$30 billion. Compute the short-run impact on real GDP. In the short-run, is increasing savings a good thing or bad thing?

(b) (7 points) What is the long-run impact on the interest rate and investment?

(c) (7 points) What is the long-run impact on output per worker? In the long-run, is increasing savings a good thing or bad thing?

3. Consider the following government policies. Describe and illustrate how each influences the *long-run* level of output per worker, if at all.

   (a) (7 points) While balancing the government budget (zero government savings), the government decreases its funding for K-12 and college education.

   (b) (7 points) While balancing the government budget, the government decreases its funding for prevention and treatment of HIV/AIDS and other dangerous sexually transmitted diseases.

   (c) (7 points) While balancing the government budget, the government increases its funding for research and development into new technologies.

   (d) (7 points) The government increases its spending on wasteful crap, causing larger government budget deficits.

4. Suppose the marginal propensity to consume is 90% and the marginal propensity to import is 15%. Suppose the economy is in a recession, real GDP is currently \$8.5 trillion and potential GDP is \$10 trillion.

  (a) (7 points) The president decides to increase government spending to solve the problem. How much should government increase its spending by?

  (b) (7 points) Explain *intuitively* the multiplier effect in your answer to part (a). Does it matter how the government spends the money? That is, does it matter what the government is buying?

5. (9 points) What was your opportunity cost to studying for this exam?