ECN 500/WGS 500 - EXAM 1 - FALL 2009

NAME: _____

INSTRUCTIONS

- Please **word-process** all answers, with the exception of graphs and technical expressions.
- Turn in at the beginning of class on Wed, Oct 28.
- You may use any books or your notes. You may consult with me about any questions, but you may not consult with others.
- Please be sure to read each question thoroughly. Explain and justify all of your work.
- Submit your answers in order. Staple your copy of the exam to the front of your answers.

1. (20 pts.) Bobbie earns \$3 per hour in market work and produces 4 units of nonmarket output per hour. Jamie earns \$2 per hour in market work and produces 6 units of nonmarket output per hour. Assume that each has 20 hours per day to devote to work and that the price of the market output is \$1. Assume this information throughout the question.

   (a) Graph each person's production possibilities curve. Briefly explain. Show all of your work.

   (b) Given what you found in part (a), does either person have a comparative advantage in market work? Briefly explain.

   (c) On the basis of what you have found in the previous parts, graph the household production possibilities curve.

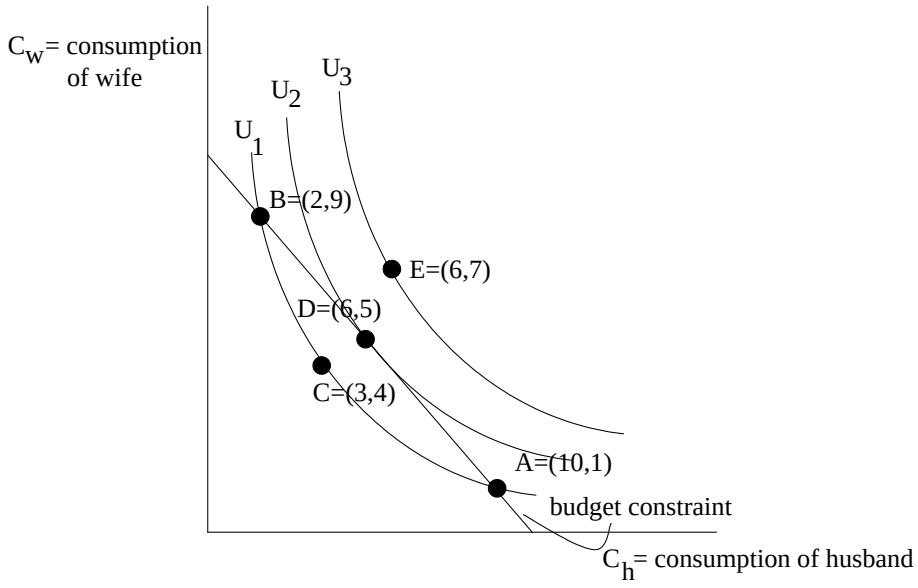
   (d) Along the household production possibilities curve in part (c), indicate, if possible, the choice of a household where:

      (i) Jamie completely specializes in market work, and Bobbie does both kinds of work. Explain.

      (ii) Bobbie completely specializes in market work, and Jamie does both kinds of work. Explain.

      (You need to insert appropriate indifference curves in these parts.) How would you describe the difference in the two households? Explain in terms of their willingness to trade off.

2. (15 pts.) In this question, you are asked to consider Becker's altruist model of allocation in the household. Assume that the price of consumption is \$1. Use the following diagram to answer each of the following parts: true, false, or uncertain. Then thoroughly explain.



(a) Assume the husband's income is \$10 and the wife's income is \$1. The husband will choose $E = (6, 7)$ as the point at which the household will operate.

(b) Assume the husband's income is \$2 and the wife's income is \$9. The husband will choose $D = (6, 5)$ as the point at which the household will operate.

(c) To a great extent, the husband's choice is insensitive to the distribution of any given household income between the husband and wife.

3. (25 pts.) Use the diagram below throughout the question. You may have to add points, another utility possibilities curve, and/or labels on it to illustrate your answers.

   (a) In our Intrahousehold Bargaining Model, what does the alienation point represent for the husband and wife?

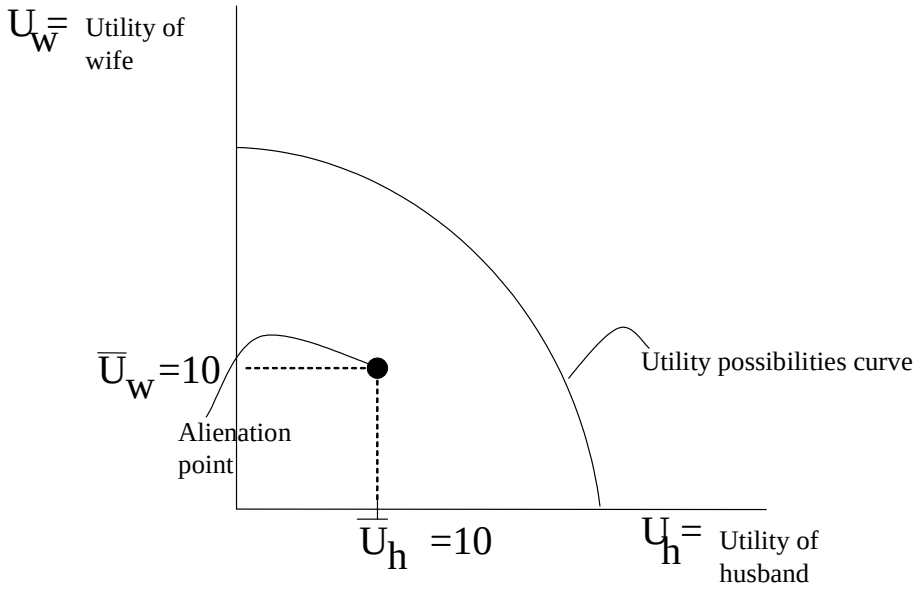
   (b) Represent the outcome in the diagram below. How do the utilities of husband and wife compare at the outcome? (As in class, assume the utility possibilities curve is "symmetric.")

   (c) Now assume that the wife receives a promotion. As a result, she receives an increase in income. In addition, assume the utility possibilities curve for the household shifts **outward** (in a symmetric way).

   What happens to the alienation point? Why? Represent your answer in the diagram below.

   Which of the following are possible impacts on the utilities of the husband and wife given the wife's promotion? Thoroughly explain. Then represent the outcome possibilities in the diagram below.

   (i) Both husband's and wife's utilities decrease.
   (ii) The husband's utility increases, but the wife's decreases.
   (iii) The husband's utility decreases, but the wife's increases.
   (iv) Both husband's and wife's utilities increase.



4. (20 pts.) In this question you are asked about the impact of a decrease in the female's wage on household equilibrium power level θ^* for the female and her work effort e^* in the model developed by Basu in Section 3 of Gender and Say.

   Answer both of the following parts: true, false, or uncertain. Thoroughly justify your answers. In each case, aside from your discussions, provide diagrams showing your claims.

   (a) In the "Normal" Case, a decrease in the female's wage reduces both the power index θ^* of the female and her work effort e^*.

   (b) In the "Conservative" Case, a decrease in the female's wage reduces both the power index of the female θ^* and her work effort e^*.

5. (20 pts.) This question is about the **first** domestic violence model discussed in class (from the article "Domestic Violence: A Nonrandom Affair"). Use the diagram below to illustrate how an <u>increase</u> in the female's income could <u>decrease</u> the level of violence in a relationship. (Assume that total household income remains constant and that the female is kept at her reservation level of utility.) What happens to the female's consumption? The male's? What happens to the female's utility? The male's? Illustrate. Explain everything briefly, but thoroughly.