Written Exam for the B.Sc. in Economics summer 2011

Microeconomics A

Final Exam

7. June 2011

(3-hour closed book exam)

Please note that the language used in your exam paper must correspond to the language of the title for which you registered during exam registration. I.e. if you registered for the English title of the course, you must write your exam paper in English. Likewise, if you registered for the Danish title of the course or if you registered for the English title which was followed by “eksamen på dansk” in brackets, you must write your exam paper in Danish.

If you are in doubt about which title you registered for, please see the print of your exam registration from the students’ self-service system.

Question 1
In many text books, Consumer's surplus is defined as the area under the ordinary demand curve. Nechyba uses the area under the marginal willingness to pay curve as the Consumer's surplus measure.

a) Let a consumer have a Cobb-Douglas utility function defined over two consumer goods. Consider a price increase in good 1 from p_1^0 to p_1^1. Calculate the two different measures of Consumer's surplus
b) Let another consumer have a quasi-linear utility function defined over two consumer goods (linear in good 2). Consider a price increase in good 1 from p_1^0 to p_1^1. Calculate the two different measures of Consumer's surplus.
c) Discuss the differences between the measures in sub-question a) and b) and explain why this difference arises.

Question 2
Comment on the statement:
For decreases in wage taxes, substitution effects put negative pressure on tax revenues while wealth effects put positive pressure on tax revenues.

Question 3
Comment on the following:
The second welfare theorem says that we can get any efficient allocation to be an equilibrium allocation. If endowments are inequitably distributed in an economy, we can therefore redistribute among people and still get an efficient outcome. As a result, there is no policy trade-off between equity and efficiency.

Question 4
Suppose we live in an exchange economy with two goods. I own 50 of both goods, and you own 250 of both goods. My tastes are captured by the utility function $u(x_1, x_2) = x_2 + 50 \ln x_1$ and yours are captured by the utility function $u(x_1, x_2) = x_2 + 100 \ln x_1$.

a) Calculate the competitive equilibrium price.
b) How much do each of us consume of good 1 in equilibrium?
c) Suppose the government transfers 100 units of your good 1 endowment to me. How is your answer to (a) and (b) affected?
d) Suppose the government instead transfers 100 units of good 2 from you to me. How is your answer to (a) and (b) affected?
e) Do you think your answers to (c) and (d) generally hold for most types of tastes -- or do you think they arise because of some specific feature of these tastes?

Question 5
Explain under which conditions consumption of a good will increase if the price of the good increases. Can this ever happen for a *normal* good? Why/Why not?