Econ 3303 Fall 2003
Intermediate Microeconomics R. Claycombe

First Exam

Write all answers in your blue book and show all work there. Return your exam in your blue book.

22 pts

1) Suppose that hurricane Isabel destroys vital resources and increases the cost of many goods. As a consequence, the marginal cost of good X is up by two dollars per unit. Supply and demand for X before Isabel were given by the equations below.

$$Q_D = 15000 - 2500P$$

$$Q_S = -200 + 100P$$

a) Draw a well-labeled diagram of the market before Isabel and solve for the equilibrium price and quantity.
b) Modify the diagram to show the effect of the hurricane and
c) Solve for the new equilibrium price and quantity.

22 pts

2) Ben and Jlo produce 2 goods, movies and concert tours. It takes Ben 3 months to make a movie, while it takes Jlo 4 months to make a movie. On the other hand, Jlo can prepare for a concert tour in 2 months, while it takes Ben 5 months to prepare for a concert tour. (We assume that their products are of equal value.)

a) Who has the absolute advantage in movie production? Explain.
b) Who has the comparative advantage in concert tours? Explain.
c) Can Ben and Jlo both benefit if they specialize and trade at a rate of 3 concert tours per movie? Explain.

12 pts
3) Give one explanation of why indifference curves for goods are convex.

22 pts
4) a) Draw a well-labeled diagram that shows budget lines for 2 years where the optimum for year1 is just exactly affordable in year 2.
b) What happens to real income from year 1 to year 2 using the Laspreyes approach? Why?
b) What happens to utility from year 1 to year 2? Why?

22 pts
5) Find derivatives for the following functions and use them to sketch a well-labeled diagram of the function.
a) $MC = 10 – Q + .1Q^2$
b) $TC = 20 + 10Q - Q^2/2 + .1Q^3/3$

I have neither given nor received unfair aid on this test nor am I aware of anyone else who has.

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