First Exam

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

20 pts.

1) Suppose that demand is $Q_D = 100 - 2P$ and supply is $Q_S = -10 + 3P$

a) Draw a well-labeled diagram of these functions and find the equilibrium values.

b) Show how a $5 sales tax affects the market (in the diagram) and solve for the new equilibrium.

c) Is the new price the one that the buyer pays or that the seller gets? What is the other one?

20 pts.

2) Barack and Mitt each can produce goods A and B, but their opportunity costs differ. It costs Barack 2B to produce a unit of A, while it only costs Mitt 1 unit of B per unit of A.

a) What are the opportunity costs of good B?

b) What can you say about the comparative advantage in the production of each good?

c) What can you say about the absoute advantage in the production of each good?

d) Suggest a price for A that will make trade mutually advantageous.

20 pts.

3) Year	P_X	P_Y	X	Y
1	10	8	4	8
2	11	10	5	7

a) Draw a well-labeled diagram of the budget lines and the consumption points.

b) What are the nominal incomes for each year?

c) What is the real income in year 2 (Laspreyes method).

d) Use your diagram to say if utility needs to move in the same direction as real income.

20 pts

4) a) Draw a well-labeled utility model diagram where there is a Giffen good, taking care to show the substitution effect and the income effect.

b) Add a second diagram where you sketch compensated and uncompensated demand curves that go with part a.

20 pts.

5) a) Suppose that $Y = 20 + 3X - .1X^2$, find dY/dX and X where Y is maximized.

b) Show that $MC = AC + Q(^{dAC}/_{dQ})$.

I have neither given nor received unfair aid on this test.

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