Economics 103 Midterm #1 Answer Key
Prof. Bryan Caplan
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Part 1: True, False, and Explain
(10 points each - 3 for the right answer, and 7 for the explanation)
State whether each of the following six propositions is true or false. In 2-3 sentences, explain why.

1. Crusoe is a sailor on a ship. The captain picks the *number* of chores he has to do, but Crusoe picks *which* chores he does. He ranks various chores in the following order of unpleasantness:

Chore	Rank
cleaning cannons	1 (most unpleasant)
swabbing deck	2
brewing rum	3
look-out	4 (least unpleasant)

T, F, and Explain: **The law of diminishing marginal utility says that if the captain tells Crusoe to do 3 chores, he will brew rum, swab the deck, and clean the cannons.**

FALSE. The law of diminishing marginal utility says that you will do the most pleasant (least unpleasant) activities first. So if Crusoe picks three tasks, they will be look-out, brewing rum, and swabbing the deck. (Particularly good answers mentioned that this illustrated the law of increasing marginal disutility, which we discussed in class).

2. "Anyone can capture fish in the ocean, but only on the run, only as hunters and gatherers. No one can *farm* the ocean, no one can engage in *aquaculture*... For example, if anyone tried to farm the sea and to increase the productivity of the fisheries by fertilizers, he would immediately be deprived of the fruits of his efforts because he could not keep other fishermen from rushing in and seizing the fish." (Murray Rothbard, *For a New Liberty*)

T, F, and Explain: **Rothbard is saying that ocean-fishing suffers from the tragedy of the commons.**

TRUE. Just as cattlemen will over-graze pastures that they don't own, fishermen will overfish areas of the ocean that they don't own. Since there is no private property in oceans, fishermen have no incentive to take a long-run view. With private property rights in oceans, fishermen would take a different perspective - trying to maximize their yield of fish over time, not just for the present moment.

3. T, F, and Explain: **University textbooks are a good example of a good with almost perfectly inelastic supply.**

FALSE. Textbooks are hardly fixed in supply like a Picasso painting; when they become more popular, publishers just print more. There is an argument that textbook DEMAND is almost perfectly inelastic; you could say that students "just have to have" all assigned textbooks. But this question is about S, not D. (Even for demand, students could share textbooks, do illegal copying, etc.)

4. A restaurant's supply curve stays the same throughout the day, but the demand for its food differs for lunch and dinner:

Meal Price	**Supply**	**Lunch Demand**	**Dinner Demand**
$16	220	5	30
$14	210	25	60
$10	200	80	120
$8	190	150	250
$6	180	250	400
$4	170	400	600

<u>T, F, and Explain:</u> **The equilibrium price of lunch is somewhere between $6 and $8; the equilibrium price of dinner is somewhere between $8 and $10.**

TRUE. First consider lunch. For $8, S exceeds D (190>150), but for $6, D exceeds supply (250>180). So the equilibrium price must lie in between. Now take dinner. For $10, S exceeds demand (200>120). But for $8, D exceeds supply (250>190). So the equilibrium price must lie between.

5. At a time when the equilibrium price of gas is $1.00/gallon, he government passes a law saying that it is only legal to sell gas for exactly $1.00/gallon: no more, no less.

<u>T, F, and Explain:</u> **If demand increases, there will be a shortage of gas; if demand falls, the law will have no effect.**

FALSE. If demand increases, then the equilibrium price exceeds $1.00, so there is a shortage. But, if demand decreases, then the equilibrium price is **less** than $1.00, so there is a surplus.

6. <u>T, F, and Explain:</u> **Landsburg ("The Iowa Car Crop") would admit that protective tariffs against foreign products help people in the U.S. <u>if</u> other countries impose tariffs on U.S. products.**

FALSE. Landsburg emphasizes that trade is just a form of technology. Taxing foreign trade just amounts to restricting the technologies people are able to use. Even if other countries ban U.S. products, we still benefit from being able to buy things from them. Of course, we would be better off if they didn't ban our products, but "retaliating" just makes a bad situation worse.

<u>Part 2:</u> Short Answer
(20 points each)
In 4-6 sentences, answer both of the following questions.

1. What would happen to the market for low-wage labor if **both** the minimum wage and welfare were abolished? Neatly show both effects on one diagram. Then carefully explain the combined consequences of these policies on wages and employment.

When you abolish the minimum wage, the market just returns to its normal equilibrium wage and quantity. Abolishing welfare does something more: It increases the SUPPLY of low-wage workers. Without welfare, people who would otherwise have stayed out of the labor force will make the unpleasant decision to look for a job.

Many people seemed to think that labor DEMAND would shift, but there is no reason to think that. Just because more people "need jobs" doesn't change the quantity I want to hire at a given wage.

2. Thomas Bailey (*The American Pageant*) writes that in the early 19th century:

> Imprisonment for debt continued to be a nightmare, though its extent has been greatly exaggerated. As late as 1830 hundreds of penniless persons were languishing in filthy holes, sometimes for owing less than one dollar. The poorer working classes were especially hard hit by this merciless practice. As the embattled laborer won the ballot and asserted himself, the state legislatures gradually abolished debtors' prisons.

What would Bastiat have to say about Bailey's analysis? In particular, how might Bastiat react to Bailey's claim that the poor were "especially hard hit by this merciless practice"? You do not need to diagram your answer.

[I got several semi-sensible answers for this. My preferred answer:] Bastiat would say: What is **seen** is that debtors - especially poor debtors - who failed to pay their debts are in jail. What is **unseen**, however, is that harsh punishments for failure to repay debts make it possible for the poor to get loans in the first place. So while the poor are more likely to be jailed, it is also easier for them to get loans that would otherwise be impossible to get. (This is particularly clean if you imagine the law saying "The poor don't have to repay loans at all." Then no one would lend to anyone who was poor).

(A number of other people pointed out that the state pays for the costs of imprisonment, feeding, and so on, and this too may be an unseen cost. I didn't think this answer was good enough for full credit, but it usually got 13-14 points out of 20).