

Economics 3250
Spring 2011

Dr. Lozada
Exam 1

Do Not Turn This Page Over Until You Are So Instructed!

This exam has 25 points. There are six questions on the exam. Most of the questions are worth 4 points, but one is worth 5 points.

Put your answers to the exam in a blue book.

You have **one hour** (that is, until **2:25pm**) to take this test. After the test is over, I'll lecture until the regular class period ends.

Answer the questions using as much precision and detail as the time allows. Correct answers which are unsupported by explanations will not be awarded points.

Answer all of the following six questions.

1. [4 points]
 - (a) What do economists mean by the term “competitive” firm?
 - (b) In what way does the economists’ use of the term “competitive” differ from the way that word is used in everyday language?
 - (c) Draw a graph showing the “marginal revenue” curve for a competitive firm, and explain why you drew it the way you did. Be sure to label the axes of the graph.
2. [4 points] In class, we discussed the following:
 - (a) Complete: either $A \succeq_s B$ or $A \preceq_s B$.
 - (b) Responsive to Individual Preferences: if $A \succ_s B$, then some individuals’ ranking of A goes up and no one’s ranking of A goes down, then it is still the case that $A \succ_s B$.
 - (c) Nonimposition: if $A \succ B$ is true for someone and $A \prec B$ is true for no one, then $A \succ_s B$.
 - (d) Nondictatorship: it is not true that “ $A \succ_s B$ if and only if $A \succ_i B$ for individual i .”
 - (e) Independence of Irrelevant Alternatives: if $A \succ_s B$ when the choices are A, B, and C, then $A \succ_s B$ when the choices are A and B alone.

We also discussed

Voter 1 ranks Clinton above Bush above Perot.
Voter 2 ranks Perot above Clinton above Bush.
Voter 3 ranks Bush above Perot above Clinton.
Clinton vs. Bush: Clinton wins.
Bush vs. Perot: Bush wins.
Clinton vs. Perot: Perot wins!

Explain why we discussed these topics—and in particular, what they have to do with environmental economics. (You do not need to explain what each of (a)—(e) mean, just explain why we discussed them and what that has to do with environmental economics.)

3. **[4 points]**
- (a) Is the Travel Cost Method a “revealed preference” approach or an “expressed preference” approach? Why?
 - (b) In class, we discussed five potential disadvantages of the Travel Cost Method. Describe two of them.
4. **[4 points]** Explain why “cost-effectiveness analysis” (which involves estimating “the cost to avoid one death” from, for example, environmental hazards) would be useless if the value of a human life were always assumed to be infinite.
5. **[5 points]** Suppose a polluter and a pollution victim are about to start a Coasian bargaining process, and suppose the polluter has the property right to pollute. Suppose the polluter could fool the pollution victim into believing that the polluter’s MNPB curve is in a different position than where it actually is.
- Draw a graph showing that it is in the polluter’s self-interest to fool the victim. On your graph, draw the true and false MNPB curves, and explain what the polluter gains from lying.
6. **[4 points]** What is the difference between an emissions charge and a user charge?