

**First Examination  
Economics 121 E/F  
September 25, 2003 – Prof. Becker**

Name: \_\_\_\_\_

Seat: \_\_\_\_\_ Row: \_\_\_\_\_

***Instructions:***

You will have the full class period to complete this exam.

The use of books is prohibited.

You may use one page of notes (8½" x 11"), a calculator, pencils, pens, etc. All other materials are to be out of reach and out of sight.

Answer only on the blank paper provided.

Write only on **one side** of each page and begin **each question** on a new page.

When you have finished, staple these pages to your answers as a coversheet.

Point values for each question are shown on the exam and below. You should allocate your time accordingly.

<b>Question</b>	<b>Possible Points</b>	<b>Your Score</b>
1	10	
2	20	
3	20	
4	20	
5	15	
<b>Total</b>	<b>95</b>	

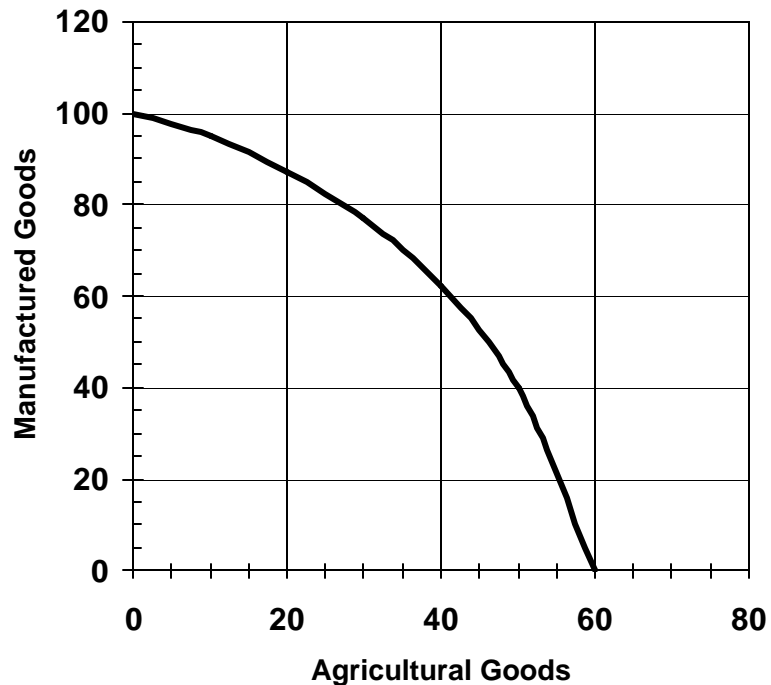
**Pledge:**

I pledge my honor that during this quiz I neither gave nor received assistance and that I saw no dishonest work.

Signed: \_\_\_\_\_

I have intentionally not signed the pledge.  (Check only if appropriate.)

1. (10 points: 5 pts. for each part) Consider the production possibilities frontier (PPF) in the graph at right. Suppose that the country is currently producing 40 units of agricultural goods and 62 units of manufacturing goods.



a) Estimate the opportunity cost of agricultural goods in terms of manufactured goods.

b) Suppose that this country can export and import both types of goods. A unit of agricultural goods sells for the same amount as a unit of manufactured goods in international markets. If the country's leadership wishes to raise the overall level of consumption of goods, should it try to increase manufacturing or agriculture? Explain with reference to the concept of comparative advantage.

2. (20 points: 5 pts. for each part) There are two types of canned tuna commonly sold in the United States. "White" tuna is from the albacore tuna; it is caught using hooks and bait. "Light" tuna is generally from the yellow tuna; trawlers using large nets catch it. The use of nets for tuna fishing is controversial because of the large number of dolphins trapped and killed inadvertently.

a) What is the likely relationship between the demands for the two types of tuna? For example, what happens to the demand for one tuna when the price of the other changes?

b) Draw two supply-and-demand diagrams: one for the market for white tuna (albacore) and the other for light tuna (yellow).

c) Suppose that new regulations are imposed to make light tuna fishing more "dolphin safe." The regulations save dolphins but also increase costs and reduce the catch of boats fishing for yellow tuna. Show the effects of these regulations on the market for light tuna (yellow) and on the market for white tuna (albacore).

d) Fishing boats can be converted easily from one type of tuna fishing to another. Explain what might happen to the two markets in the long run. Redraw the supply and demand diagrams to answer this part.

3. (20 points: 5 pts. for each part) Supply and demand for whole milk in Minnesota is given by the equations:

$$\text{Demand} \rightarrow Q_d = 6000 - 1000 P$$

$$\text{Supply} \rightarrow Q_s = -6000 + 3000 P$$

where the quantities are in 1,000's of gallons per month and price (P) is in dollars per gallon.

- a) Solve for the equilibrium price and quantity.
  - b) The state legislature decides that the equilibrium price is “too low” and wants to “support our dairy farmers” by imposing a price floor of \$3.50 per gallon. How much of a surplus, if any, will this create?
  - c) If the state will purchase the entire surplus, how much will the price support program cost per month?
  - d) Using a graph, show how a subsidy could give the same production of milk as the price floor (price support). Your graph should show supply, demand, and the price floor as well as the effect of the subsidy.
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4. (20 points: 10 pts. maximum for each answer) Consider these four articles from *Classic Readings*:

- a) Alfred Marshall, *Economics*
- b) John Stewart Mill, “The Subjection of Women”
- c) Bertrand de Jouvenel, “Rent Control: An Example of Price Fixing”
- d) Frédéric Bastiat, “Petition of the Candlemakers”

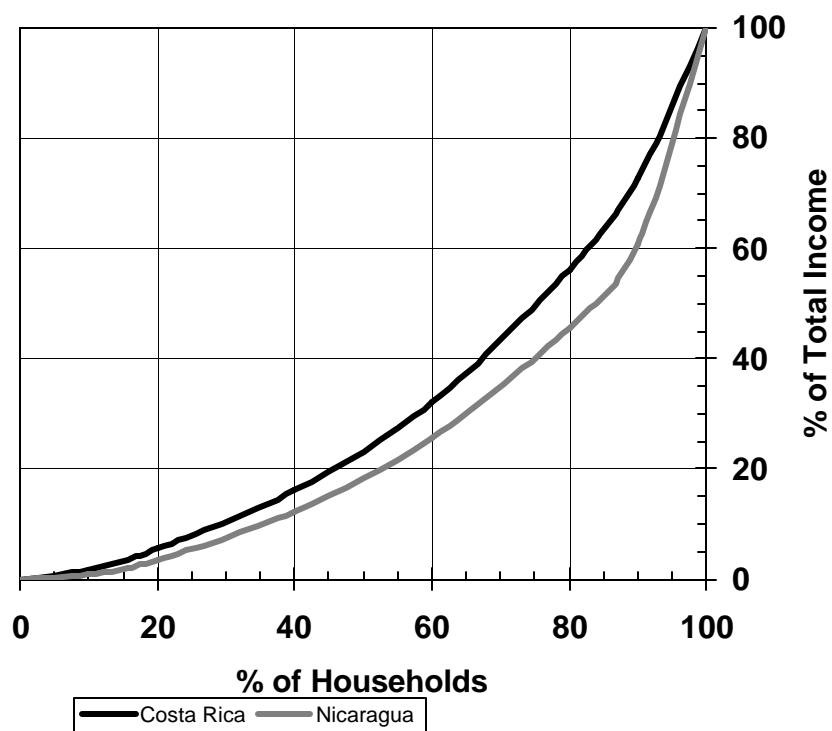
Choose two of these and for each, (1) identify the author's main point or objective in writing the article and (2) how it relates to our class discussions.

Please restrict your answers to no more than four sentences. You may answer more than two but you cannot earn more than 20 points.

5. (15 points: 5 pts. for each part) The table below shows shares of total income for urban households in four Latin American nations. (“Deciles” are 10% of the households. For example, the first two deciles together are the lowest quintile.) In addition, the Gini coefficients have been calculated from the data and per capita gross domestic product (GDP) is provided. Per capita GDP is a rough measure of average income per person. Below the table is a graph of the Lorenz curves for Costa Rica and Nicaragua.

Country Year	Argentina 1999	Bolivia 1999	Costa Rica 1999	Nicaragua 1998
First decile	2.3	1.6	1.7	0.9
Second decile	3.7	3.5	3.8	2.6
Lowest quintile	6	5.1	5.5	3.5
Second quintile	9.8	10.1	10.6	8.8
Middle quintile	13.3	14.3	15.9	13.3
Fourth quintile	19.3	21	24.2	20.1
Highest quintile	51.6	49.5	43.8	54.3
Ninth decile	14.9	16.8	16.6	15.2
Tenth decile	36.7	32.7	27.2	39.1
<b>Gini Coefficient</b>	0.426	0.417	0.374	0.477
<b>Per capita GDP</b>	\$7,755	\$1,018	\$4,017	\$430

Source: Comisión Económica para América Latina y el Caribe (Economic Commission for Latin America and the Caribbean, CEPAL-ECLAC), *Anuario Estadístico 2002 (Statistical Yearbook 2002)*. Santiago, Chile: United Nations.



5. (continued)

a) On the Lorenz curve graph above, sketch the Lorenz curve for Argentina.

b) In which of the four countries is income most equally distributed? Explain.

c) Per capita GDP will be roughly equal to income per person in the country. If so, which country's income distribution would a Rawlsian prefer? Which would a Utilitarian prefer? Explain why in both cases.

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6. (extra credit, maximum of zero points) Identify the nation whose national anthem was played in class and is in the class directory on Brit (L:). Hint: the opening lines are...

¡Oíd, mortales! el grito sagrado:  
¡Libertad, libertad, libertad!  
Oíd el ruido de rotas cadenas;  
Ved el trono a la noble igualdad.

*Translation:*

Mortals! Hear the sacred cry:  
Liberty, liberty, liberty!  
Hear the sounds of broken chains;  
See the throne of noble equality.