PART 1

Key-v1

IMPORTANT

USE NO. 2 PENCIL ONLY

- MAKE DARK MARKS
- ERASE COMPLETELY TO CHANGE
- EXAMPLE: ⊏A⊐ B ■ D E

TO USE SUBJECTIVE SCORE FEATURE:

- Mark total possible subjective points
- Only one mark per line on key
- 150 points maximum

EXAMPLE OF STUDENT SCORE: ⊏90⊐ ⊏80⊐ ⊏70⊐ ⊏60⊐ ⊏50⊐ ⊏40⊐ ⊏30⊐ ■20⊐ ⊏10⊐ ⊏9⊐ ⊏8⊐ ⊏7⊐ ⊏6⊐ ■5⊐ ⊏4⊐ ⊏3⊐ ⊏2⊐ ⊏1⊐ ⊏0⊐ — 125

SCANTRON® FORM NO. 881-ES

TO REORDER CALL 1-800-722-6876 STANDARD FORMS DEPT. CANADA 1-800-263-3338

NAME			
SUBJECT	3250	TEST NO.	Final
DATE	Spr '00	HOUR	

TEST RECORD	
PART 1	
PART 2	
TOTAL	

SUBJECTIVE SCORE INSTRUCTOR USE ONLY

⊏100⊐ ⊏90⊐ ⊏80⊐ ⊏70⊐ ⊏60⊐ ⊏50⊐ ⊏40⊐ ⊏30⊐ ⊏20⊐ ⊏10⊐ ⊏9⊐ ⊏8⊐ ⊏7⊐ ⊏6⊐ ⊏5⊐ ⊏4⊐ ⊏3⊐ ⊏2⊐ ⊏1⊐ ⊏0⊐

KEY (T) (F) ⊏%⊐ ⊏2⊐ ⊏3⊐

1 ⊏A⊐ ⊏B⊐ ⊏C⊐ ⊏D⊐ ⊏E⊐	2 ⊏A⊐ ⊏B⊐ ⊏C⊐ ⊏D⊐ ⊏E⊐	3 ⊏A⊐ ⊏B⊐ ⊏C⊐ ⊏D⊐ ⊏E⊐	4 ⊏A⊐ ⊏B⊐ ⊏C⊐ ⊏D⊐ ⊏E⊐	5 ⊏A⊐ ⊏B⊐ ⊏C⊐ ⊏D⊐ ⊏E⊐	6 ⊏A⊐ ⊏B⊐ ⊏C⊐ ⊏D⊐ ⊏E⊐	7 ⊏A⊐ ⊏B⊐ ⊏C⊐ ⊏D⊐ ⊏E⊐	8 ⊏A⊐ ⊏B⊐ ⊏C⊐ ⊏D⊐ ⊏E⊐	9 ⊏A⊐ ⊏B⊐ ⊏C⊐ ⊏D⊐ ⊏E⊐	10 ⊏A⊐ ⊏B⊐ ⊏C⊐ ⊏D⊐ ⊏E⊐
11 ⊏A⊐ ⊏B⊐ ⊏C⊐ ⊏D⊐ ⊏E⊐	12 ⊏A⊐ ⊏B⊐ ⊏C⊐ ⊏D⊐ ⊏E⊐	13 ⊏A⊐ ⊏B⊐ ⊏C⊐ ⊏D⊐ ⊏E⊐	14 ⊏A⊐ ⊏B⊐ ⊏C⊐ ⊏D⊐ ⊏E⊐	15 ⊏A⊐ ⊏B⊐ ⊏C⊐ ⊏D⊐ ⊏E⊐	16 ⊏A⊐ ⊏B⊐ ⊏C⊐ ⊏D⊐ ⊏E⊐	17 ⊏A⊐ ⊏B⊐ ⊏C⊐ ⊏D⊐ ⊏E⊐	18 ⊏A⊐ ⊏B⊐ ⊏C⊐ ⊏D⊐ ⊏E⊐	19 ⊏A⊐ ⊏B⊐ ⊏C⊐ ⊏D⊐ ⊏E⊐	20 ⊏A⊐ ⊏B⊐ ⊏C⊐ ⊏D⊐ ⊏E⊐
21 ⊏A⊐ ⊏B⊐ ⊏C⊐ ⊏D⊐ ⊏E⊐	22 ⊏A⊐ ⊏B⊐ ⊏C⊐ ⊏D⊐ ⊏E⊐	23 ⊏A⊐ ⊏B⊐ ⊏C⊐ ⊏D⊐ ⊏E⊐	24 ⊏A⊐ ⊏B⊐ ⊏C⊐ ⊏D⊐ ⊏E⊐	25 ⊏A⊐ ⊏B⊐ ⊏C⊐ ⊏D⊐ ⊏E⊐	26 ⊏A⊐ ⊏B⊐ ⊏C⊐ ⊏D⊐ ⊏E⊐	27 ⊏A⊐ ⊏B⊐ ⊏C⊐ ⊏D⊐ ⊏E⊐	28 ⊏A⊐ ⊏B⊐ ⊏C⊐ ⊏D⊐ ⊏E⊐	29 ⊏A⊐ ⊏B⊐ ⊏C⊐ ⊏D⊐ ⊏E⊐	30 ⊏A⊐ ⊏B⊐ ⊏C⊐ ⊏D⊐ ⊏E⊐
31 ⊏A⊐ ⊏B⊐ ⊏C⊐ ⊏D⊐ ⊏E⊐	32 ⊏A⊐ ⊏B⊐ ⊏C⊐ ⊏D⊐ ⊏E⊐	33 ⊏A⊐ ⊏B⊐ ⊏C⊐ ⊏D⊐ ⊏E⊐	34 ⊏A⊐ ⊏B⊐ ⊏C⊐ ⊏D⊐ ⊏E⊐	35 ⊏A⊐ ⊏B⊐ ⊏C⊐ ⊏D⊐ ⊏E⊐	36 ⊏A⊐ ⊏B⊐ ⊏C⊐ ⊏D⊐ ⊏E⊐	37 ⊏A⊐ ⊏B⊐ ⊏C⊐ ⊏D⊐ ⊏E⊐	38 ⊏A⊐ ⊏B⊐ ⊏C⊐ ⊏D⊐ ⊏E⊐	39 ⊏A⊐ ⊏B⊐ ⊏C⊐ ⊏D⊐ ⊏E⊐	40 ⊏A⊐ ⊏B⊐ ⊏C⊐ ⊏D⊐ ⊏E⊐
41 ⊏A⊐ ⊏B⊐ ⊏C⊐ ⊏D⊐ ⊏E⊐	42 ⊏A⊐ ⊏B⊐ ⊏C⊐ ⊏D⊐ ⊏E⊐	43 ⊏A⊐ ⊏B⊐ ⊏C⊐ ⊏D⊐ ⊏E⊐	44 ⊏A⊐ ⊏B⊐ ⊏C⊐ ⊏D⊐ ⊏E⊐	45 ⊏A⊐ ⊏B⊐ ⊏C⊐ ⊏D⊐ ⊏E⊐	46 ⊏A⊐ ⊏B⊐ ⊏C⊐ ⊏D⊐ ⊏E⊐	47 ⊏A⊐ ⊏B⊐ ⊏C⊐ ⊏D⊐ ⊏E⊐	48 ⊏A⊐ ⊏B⊐ ⊏C⊐ ⊏D⊐ ⊏E⊐	49 ⊏A⊐ ⊏B⊐ ⊏C⊐ ⊏D⊐ ⊏E⊐	50 ⊏A⊐ ⊏B⊐ ⊏C⊐ ⊏D⊐ ⊏E⊐

FEED THIS DIRECTION

www.scantron.com 90 D 999-12 11 10

Economics 3250 Dr. Lozada
Spring 2000 Final Exam

This exam has 30 questions, equally weighted. Some questions have four options for the answer, while other questions have five options for the answer. Give the single most correct answer to each question by marking in the appropriate place on the "Scantron" sheet you have been given. Do not mark more than one answer for any question. If you have to erase, erase completely, or your exam may be misgraded by the Scantron machine.

On the Scantron sheet, also write your name and the phrase "3250 Final Exam, Spring 2000."

You have 2 hours to finish this test.

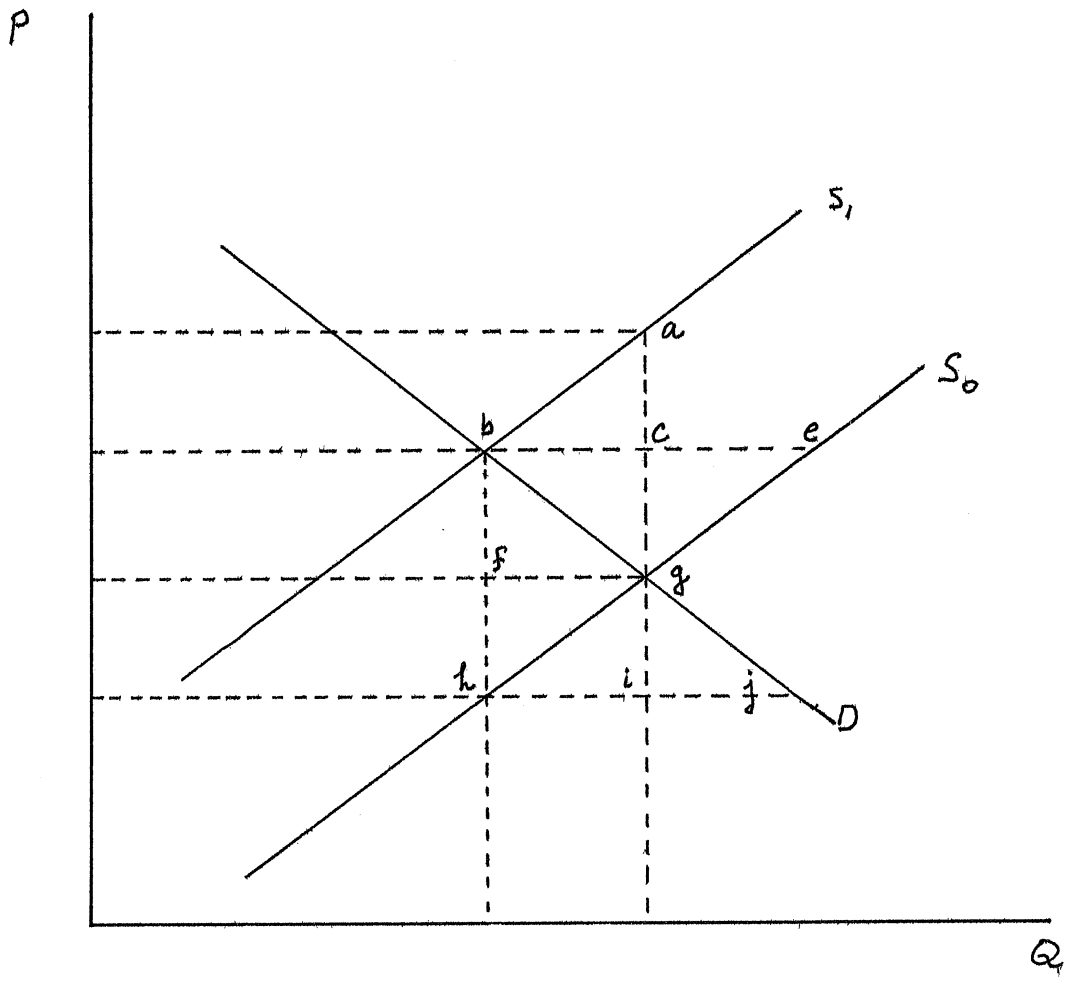

Figure 1.

1. The gas which has contributed the most to global warming is
   (a) carbon monoxide.
   (b) chloroflurocarbons.
   (c) methane.
   (d) ammonia.
   (e) carbon dioxide.

2. A recent, as yet unratified international agreement to curb greenhouse gas emissions is
   (a) the IPCC.
   (b) the Montreal Protocol.
   (c) the Kyoto Protocol.
   (d) the Nordhaus/Hotelling Accord.
   (e) the Dhaka (Bangladesh) Accord.

3. The problem of global warming is characterized by
   (a) a long lag between emission and impact.
   (b) rapid dissipation of greenhouse gases in the atmosphere.
   (c) no current end-of-pipe solution.
   (d) choices (a), (b), and (c).
   (e) choices (a) and (c).

4. Ozone's effect on human welfare is
   (a) good.
   (b) bad.
   (c) good (for tropospheric ozone) and bad (for stratospheric ozone).
   (d) bad (for tropospheric ozone) and good (for stratospheric ozone).
   (e) still a topic of considerable scientific debate.

5. In the US, refrigerants adversely affecting the ozone layer are being primarily regulated by
   (a) command-and-control.
   (b) taxes.
   (c) subsidies.
   (d) tradeable permits.
   (e) rules-of-thumb.

6. Large ecosystem effects from adverse changes in the ozone layer have been observed

   (a) in polar bears.
   (b) in near-desert areas.
   (c) in tropical rain forests.
   (d) in ocean life.
   (e) all of the above choices.

7. Debt-for-nature swaps provide a measurement of biodiversity's

   (a) non-use value.
   (b) direct use value.
   (c) indirect use value.
   (d) choices (b) and (c).
   (e) choices (a), (b), and (c).

8. Biodiversity (especially indirect use values and non-use values) is

   (a) a local public good and a global public good.
   (b) a local public good and a global private good.
   (c) a local private good and a global public good.
   (d) a local private good and a global private good.

9. The moral argument in favor of biodiversity

   (a) is irrelevant to economics.
   (b) means that economics is irrelevant.
   (c) would influence a cost-benefit analysis.
   (d) could not reflect a "deep ecology" standpoint.

10. Scientists are most unsure about a link between acid rain and

    (a) human health.
    (b) corrosion of buildings.
    (c) leaf damage to trees.
    (d) crop damage.
    (e) damage to aquatic life.

11. At most, acid-rain-causing emissions in the US could cause acid rain to fall

    (a) a few dozen kilometers away.
    (b) a few hundred kilometers away.
    (c) a few thousand kilometers away.
    (d) at any point on the Earth's surface.

12. Acid rain is primarily caused by emissions of

    (a) carbon dioxide.
    (b) sulfur dioxide.
    (c) CFC's.
    (d) greenhouse gases.
    (e) choices (a) and (c).

13. The Environmental Kuznets Curve

    (a) is generally upward sloping.
    (b) is generally downward sloping.
    (c) is generally shaped like the letter U.
    (d) is generally shaped like the letter U turned upside down.
    (e) can have several of the shapes listed above.

14. Environmental problems are always made worse by

    (a) fertilizer subsidies.
    (b) irrigation water subsidies.
    (c) fertilizer taxes.
    (d) irrigation water taxes.
    (e) institutional weakness.

15. Insecure tenancy is common

    (a) for forests in developing countries.
    (b) for forests in developed countries.
    (c) for fisheries in developing countries.
    (d) for fisheries in developed countries.
    (e) choices (a), (c), and (d).

16. The "circular flow" diagram of an economy

    (a) shows resource inputs to the economy, but not waste outputs.

    (b) does not show resource inputs to the economy, but does show waste outputs.

    (c) shows neither resource inputs to the economy nor waste outputs.

    (d) shows both resource inputs to the economy and waste outputs.

17. Consider two physical phenomena: the first, an ink drop dispersing in water; and the second, some oil separating from water. These are

    (a) both examples of increasing entropy.

    (b) both examples of decreasing entropy.

    (c) different because the first has increasing entropy and the second has decreasing entropy.

    (d) different because the first has decreasing entropy and the second has increasing entropy.

18. The idea that "the universe as a whole is experiencing a unidirectional, irreversible evolution" is an idea based on

    (a) the Law of Conservation of Energy.

    (b) Newton's Third Law of Motion.

    (c) Einstein's General Theory of Relativity.

    (d) Georgescu-Roegen's Fourth Law of Thermodynamics.

    (e) the Second Law of Thermodynamics.

19. If one ranks environmental schools of thought in order from "believing that environmental concerns require drastic changes in economic theories" to "believing that environmental concerns require very little modification of economic theories," the order one obtains is

    (a) deep ecology, accommodating, communalist, cornucopian.

    (b) deep ecology, cornucopian, communalist, accommodating.

    (c) deep ecology, accommodating, cornucopian, communalist.

    (d) deep ecology, communalist, accommodating, cornucopian.

    (e) deep ecology, communalist, cornucopian, accommodating.

20. If something is included in a "moral reference class," it absolutely must have

    (a) intrinsic value but not necessarily extrinsic (instrumental) value.
    (b) extrinsic (instrumental) value but not necessarily intrinsic value.
    (c) both intrinsic value and extrinsic (instrumental) value.
    (d) neither intrinsic value nor extrinsic (instrumental) value.

21. The "non-identity problem" refers to the difficulty of assigning appropriate rights

    (a) to nonhumans.
    (b) when one is behind the "veil of ignorance."
    (c) to our ancestors who are no longer living.
    (d) to people who may or may not ever exist.
    (e) to people who are alive today but are not identified in a systematic way.

22. Julian Simon wrote a book called *The Ultimate Resource*. To what resource does the title of the book refer?

    (a) energy
    (b) entropy
    (c) the sun
    (d) Gaia
    (e) people

23. Which of the following authors first asserted that the question of optimal population size was not merely a question of "how many people can the earth support?" but rather a question of "how many people can the earth support for how long and at what standard of living?

    (a) Nicholas Georgescu-Roegen
    (b) Julian Simon
    (c) John Stuart Mill
    (d) R. Thomas Malthus
    (e) Karl Marx

24. Suppose someone had a goal of maximizing the number of people who will ever live on earth. Such a person would advocate

    (a) maximizing the current population growth rate (to achieve a large population as soon as possible).

    (b) achieving a zero population growth rate (in order to have more future generations than in choice (a)).

    (c) achieving a negative population growth rate (in order to have more future generations than in choices (a) and (b)).

    (d) it is not possible to answer (a) or (b) or (c) without knowing this person's belief about whether there are ecological limits to growth.

25. Consider the following definition: "development that meets the needs of the present without compromising the ability of future generations to meet their own needs." This defines

    (a) intergenerational equity (only).

    (b) intragenerational equity (only).

    (c) sustainability (only).

    (d) justice (only).

26. "Sustainability" refers to future generations having so many resources that they have the same

    (a) capacity for happiness as ourselves.

    (b) happiness as ourselves.

    (c) Gross National Product as ourselves.

    (d) Gross National Income as ourselves.

27. To achieve sustainable development, one requires

    (a) constant capital through time, which is easy to measure.

    (b) rising capital through time, which is easy to measure.

    (c) constant capital through time, which is difficult to measure.

    (d) rising capital through time, which is difficult to measure.

28. Karl Marx would certainly agree with the following statement:
    (a) there are no ecological limits to growth under capitalism.
    (b) there are no ecological limits to growth under socialism/communism.
    (c) there are ecological limits to growth under socialism/communism.
    (d) both (a) and (c).

29. The "Cowboy Economy" and "Spaceship Earth" analogies were first made by
    (a) A. C. Pigou
    (b) L. Gray
    (c) H. Scott Gordon
    (d) Herman Daly
    (e) Kenneth Boulding

30. The following two authors saw many advantages to a "stationary-state economy" or "steady-state economy":
    (a) Daly and Georgescu-Roegen
    (b) Mill and Georgescu-Roegen
    (c) Mill and Daly
    (d) Hotelling and Mill
    (e) Hotelling and Daly

31. Refer to Figure 1. In this figure, a tax has been imposed on a polluting industry. The amount of the tax is
    (a) BE
    (b) FG
    (c) HJ
    (d) IG
    (e) AG

32. Refer to Figure 1. In this figure, a tax has been imposed on a polluting industry. The amount of the tax which consumers ultimately pay is

    (a) BF
    (b) HF
    (c) GHJ
    (d) CG
    (e) HJ

33. Refer to Figure 1. In this figure, a tax has been imposed on a polluting industry. The amount of the tax which the firms ultimately pay is

    (a) BF
    (b) HF
    (c) BGE
    (d) ABC
    (e) BE

34. Refer to Figure 1. In this figure, a tax has been imposed on a polluting industry. The quantity produced by the industry

    (a) rises from I to J.
    (b) rises from H to J.
    (c) falls from I to H.
    (d) falls from J to H.
    (e) falls from J to I.

35. "Willingness to pay" is typically

    (a) less than "willingness to accept."
    (b) more than "willingness to accept."
    (c) about the same as "willingness to accept."
    (d) shows no regular relationship to "willingness to accept."

36. The Coase Theorem

    (a) shows that the "marginal external cost" curve added to the "marginal variable cost" curve together lie above the "marginal revenue" curve.

    (b) shows that the difference between "marginal external cost" and "marginal net private benefit" falls as Pigouvian taxes fall.

    (c) shows that the difference between "marginal external cost" and "marginal net private benefit" rises as Pigouvian taxes fall.

    (d) shows that in some (unusual) situations, Pigouvian taxes are not necessary to correct externalities.

    (e) shows that the socially optimal level of pollution is not zero.

37. Which of the following types of standards have been most successful in the US?

    (a) technology-based standards

    (b) ambient-based standards

    (c) benefits-based standards

    (d) Technology-based standards and benefits-based standards have been about equally as successful.

38. While most firms set marginal revenue equal to marginal cost, exhaustible resource firms

    (a) set marginal revenue greater than marginal cost, with the gap growing as time goes on.

    (b) set marginal revenue less than marginal cost, with the gap growing as time goes on.

    (c) set marginal revenue greater than marginal cost, with the gap shrinking as time goes on.

    (d) set marginal revenue less than marginal cost, with the gap shrinking as time goes on.

39. Tradeable permits work best when

    (a) the number of polluting firms is small.

    (b) the number of polluting firms is large.

    (c) the previous amount of pollution per firm was large.

    (d) the previous amount of pollution per firm was small.

    (e) choices (b) and (d).

40. The following government policies are usually environmentally "friendly":

    (a) subsidies for fertilizer.

    (b) subsidies for irrigation water.

    (c) subsidies for pesticides.

    (d) choices (a) and (b).

    (e) none of the above.

41. The approximate amount of money spent in the US every year on pollution abatement (both public and private expenditures) is what? (Hint: to get a rough size of the US economy, use the fact that GNP is approximately equal to national income, and national income is equal to the number of people in the country times the average income per person.)

    (a) $15 million ($15,000,000)

    (b) $1.5 billion ($1,500,000,000)

    (c) $150 billion ($150,000,000,000)

    (d) $1.5 trillion ($1,500,000,000,000)

    (e) $150 trillion ($150,000,000,000,000)