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48 ⊏A⊐

49 ⊏A⊐

50 ⊏A⊐

#20

SUBJECTIVE SCORE

TEST RECORD

CONTROL WITH COMPACE

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, the phrase "3250 Exam 2 Spring 2000," and write either "Econ. major" or "not Econ. major", whichever describes you.

You have 1 hour and 20 minutes (till 12:05 PM) to finish this test.

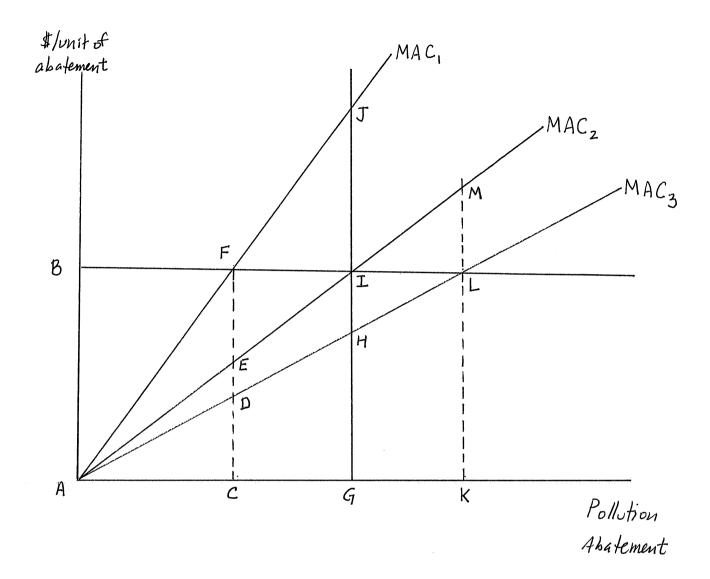


Figure 1

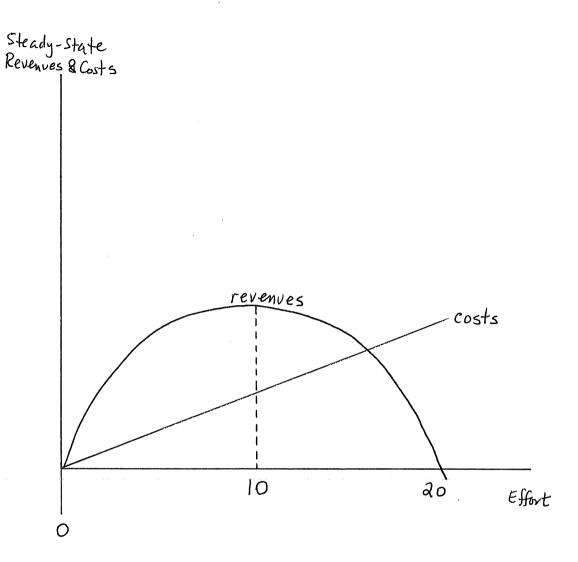


Figure 2

- 1. In Figure 1, suppose a tax in the amount of AB is imposed on firms for each unit of pollution which they do not abate. How much pollution abatement is performed by firm 1?
  - (a) AC
  - (b) CD
  - (c) CE
  - (d) CF
  - (e) ABFC
- 2. In Figure 1, suppose a tax in the amount of AB is imposed on firms for each unit of pollution which they do not abate. What are the total abatement costs for firm 3?
  - (a) ILKG
  - (b) BLKA
  - (c) ALK
  - (d) HLKG
  - (e) ADC
- 3. In Figure 1, suppose in the past, all three firms were prohibited from engaging in less than AG amount of pollution abatement. Suppose these prohibitions are eliminated, but instead a tax in the amount of AB is imposed on firms for each unit of pollution which they do not abate. As a result of this change, abatement costs for firm 1
  - (a) go up.
  - (b) are unchanged.
  - (c) go down.
  - (d) undergo a change whose direction cannot be determined from the information given.
- 4. In Figure 1, suppose in the past, all three firms were prohibited from engaging in less than AG amount of pollution abatement. Suppose these prohibitions are eliminated, but instead a tax in the amount of AB is imposed on firms for each unit of pollution which they do not abate. As a result of this change, abatement costs for firm 2
  - (a) go up.

- (b) are unchanged.
- (c) go down.
- (d) undergo a change whose direction cannot be determined from the information given.
- 5. In Figure 1, suppose in the past, all three firms were prohibited from engaging in less than AG amount of pollution abatement. Suppose these prohibitions are eliminated, but instead a tax in the amount of AB is imposed on firms for each unit of pollution which they do not abate. As a result of this change, abatement costs for firm 3
  - (a) go up.
  - (b) are unchanged.
  - (c) go down.
  - (d) undergo a change whose direction cannot be determined from the information given.
- 6. In Figure 1, suppose in the past, all three firms were prohibited from engaging in less than AG amount of pollution abatement. Suppose these prohibitions are eliminated, but instead a tax in the amount of AB is imposed on firms for each unit of pollution which they do not abate. Further suppose that CG = GK. Figure 1 can then be used to show that the change in policy results in
  - (a) total abatement costs rising while pollution levels are unchanged.
  - (b) total abatement costs rising while pollution levels decrease.
  - (c) total abatement costs rising while pollution levels increase.
  - (d) total abatement costs falling while pollution levels are unchanged.
  - (e) total abatement costs falling while pollution levels are increase.
- 7. Suppose the government is going to impose a "tradeable pollution permits" type of regulation. The government is trying to decide between allocating the initial tradeable pollution permits according to "grandfathering" or according to "auctions."
  - (a) Both polluting firms and the general taxpayer would prefer grand-fathering to an auction.
  - (b) The polluting firms would prefer auctions to grandfathering, but the general taxpayer would prefer grandfathering to auctions.

- (c) The polluting firms would prefer grandfathering to auctions, but the general taxpayer would prefer auctions to grandfathering.
- (d) Both polluting firms and the general taxpayer would prefer auctions to grandfathering.
- 8. Adopting tradeable pollution permits will not increase efficiency (when compared to "command-and-control" regulation resulting in the same total amount of pollution) if
  - (a) all of the polluting firms are identical.
  - (b) none of the polluting firms are identical.
  - (c) more than half (but not all) of the polluting firms are identical.
  - (d) less than half (but more than zero) of the polluting firms are identical.
  - (e) less than half, and possibly zero, of the polluting firms are identical.
- 9. The least commonly used type of permit trading in the US in the past has been
  - (a) netting.
  - (b) offsets.
  - (c) bubbles.
  - (d) banking.
- 10. Rent-seeking refers to
  - (a) searching for profits in new markets.
  - (b) manipulating public policy for private gain.
  - (c) increasing the compensation for input suppliers.
  - (d) decreasing the compensation for input suppliers.
- 11. "Technology-based standards" are regulations on
  - (a) the kind of pollution control technology which firms may use.
  - (b) the kind of pollution measurement technology which firms may use.
  - (c) the kind of pollution measurement technology which regulators may use.
  - (d) the kind of pollution damage assessment technology which regulators use to set standards.

- 12. Regulating ambient pollution means regulating
  - (a) relatively minor pollutants (in terms of their health effects).
  - (b) pollutants which remain in the environment for many decades.
  - (c) noise or other types of sound pollution.
  - (d) the introduction of new types of pollutants.
  - (e) pollutant concentration in air or water.
- 13. Figure 2 represents a fishery. In this fishery, the open access equilibrium level of effort is
  - (a) 0.
  - (b) between 0 and 10.
  - (c) 10.
  - (d) between 10 and 20.
  - (e) 20 or more.
- 14. Figure 2 represents a fishery. In this fishery, the profit-maximizing level of effort (for, say, a monopolist) is
  - (a) 0.
  - (b) between 0 and 10.
  - (c) 10.
  - (d) between 10 and 20.
  - (e) 20 or more.
- 15. Figure 2 represents a fishery. In this fishery, the maximum-sustainable-yield level of effort is
  - (a) 0.
  - (b) between 0 and 10.
  - (c) 10.
  - (d) between 10 and 20.
  - (e) 20 or more.

- 16. Open-access equilibrium is characterized by
  - (a) zero profit.
  - (b) inefficiency.
  - (c) lack of property rights.
  - (d) all of the above.
  - (e) choices (b) and (c).
- 17. If one ignores the effect of high interest rates on the cost of capital goods, then high interest rates would cause
  - (a) a decrease in marine species extinctions and an increase in the steady-state stock size.
  - (b) an increase in marine species extinctions and an increase in the steady-state stock size.
  - (c) a decrease in marine species extinctions and a decrease in the steady-state stock size.
  - (d) an increase in marine species extinctions and a decrease in the steady-state stock size.
- 18. Compared to open-access management, common property management
  - (a) is generally less efficient.
  - (b) leads to lower numbers of fish surviving.
  - (c) is generally more efficient.
  - (d) choices (a) and (b).
- 19. The book "Limits to Growth" was an example of what kinds of positions concerning resource scarcity?
  - (a) technocentric and Ricardian.
  - (b) technocentric and Malthusian.
  - (c) ecocentric and Ricardian.
  - (d) ecocentric and Malthusian.

#### 20. A "static stock index"

- (a) measures how long current reserves of a resource will last at current usage levels, or at historically increasing usage levels.
- (b) of 110 would mean that current resource stocks are 1.10 times as large as resource stocks at some "base year" in the past.
- (c) ignores the discovery of new reserves in the future.
- (d) choices (a) and (c).
- (e) choices (b) and (c).
- 21. According to the Hotelling Rule, an exhaustible resource firm's
  - (a) marginal revenue (price) minus marginal cost is zero at all dates.
  - (b) marginal revenue (price) minus marginal cost is positive and rises at the rate of interest.
  - (c) marginal revenue (price) minus marginal cost is negative and rises at the rate of interest.
  - (d) marginal revenue (price) minus marginal cost is positive and falls at the rate of interest.
  - (e) marginal revenue (price) minus marginal cost is negative and falls at the rate of interest.
- 22. According to most empirical studies, user cost in extractive industries is
  - (a) clearly positive.
  - (b) zero or close to zero.
  - (c) clearly negative.
  - (d) clearly positive for some extractive industries, clearly negative for others, and zero or close to zero for yet others.
- 23. Multinational corporations and free international trade encourage the cutting of tropical forests for
  - (a) fuel.
  - (b) wood (not to be burned).
  - (c) land clearing and agriculture.
  - (d) choices (a) and (b).
  - (e) choices (b) and (c).

## 24. Among the positive externalities of tropical forests are

- (a) carbon sequestration.
- (b) hydrogen fixation.
- (c) watershed protection.
- (d) choices (a) and (b) and (c).
- (e) choices (a) and (c).

### 25. "NIMBY" refers to

- (a) a tradeable ("marketable") permit scheme for municipal solid waste.
- (b) regulating municipal solid waste with a combination of taxes and command-and-control.
- (c) resisting the placing of noxious facilities near where you live.
- (d) a European Union initiative to increase recycling of glass and aluminum by at least 10% between 1993 and 2005.

# 26. A "materials levy" is a

- (a) user charge.
- (b) tax and subsidy combined.
- (c) tax on inputs to production.
- (d) tax on outputs of production.

### 27. A "deposit-refund system" is a

- (a) user charge.
- (b) tax and subsidy combined.
- (c) tax on inputs to production.
- (d) tax on outputs of production.

## 28. A "waste disposal charge" is a

- (a) user charge.
- (b) tax and subsidy combined.
- (c) tax on inputs to production.
- (d) tax on outputs of production.

- 29. A "product charge" is a
  - (a) user charge.
  - (b) tax and subsidy combined.
  - (c) tax on inputs to production.
  - (d) tax on outputs of production.
- 30. Avoiding "hot spots" is particularly important for a regulator if the regulatory method is
  - (a) marketable permits.
  - (b) a material levy.
  - (c) a deposit-refund system.
  - (d) a waste disposal charge.
  - (e) a product charge.