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This exam has 31 questions, equally weighted. Some questions have four options for the answer, while other questions have five options for the answer. Give the most correct answer to each question by marking in the appropriate place on the “Scantron” sheet you have been given.

On the Scantron sheet, also fill in your name, fill in “Econ 3250” for subject, fill in today’s date, fill in “1” for the test number, 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.

Figures 1 and 2 are located at the end of the exam.
1. Suppose that a person with income of $100,000 has to pay $20,000 in income taxes. This person’s average tax rate is:
   (a) 120%
   (b) 20%
   (c) 50%
   (d) less than 20%
   (e) impossible to determine from the information given.

2. Suppose that a person with income of $100,000 has to pay $20,000 in income taxes. This person’s marginal tax rate is:
   (a) 120%
   (b) 20%
   (c) 50%
   (d) less than 20%
   (e) impossible to determine from the information given.

3. Bread is
   (a) exclusive and rival
   (b) exclusive but not rival
   (c) not exclusive but rival
   (d) not exclusive and not rival

4. In Figure 1, what is the most appropriate label for the vertical axis?
   (a) dollars
   (b) dollars per unit of output
   (c) pollution (in, say, tons) per unit of output
   (d) output per dollar of input

5. In Figure 1, what is a private firm’s profit-maximizing level of output?
   (a) point F
   (b) point B
   (c) point C
   (d) point D
   (e) point E
6. In Figure 1, what is the socially optimal level of output?
   (a) point F
   (b) point B
   (c) point C
   (d) point D
   (e) point E

7. In Figure 1, the marginal external cost of pollution could conceivably be
   (a) AE
   (b) BK
   (c) KG
   (d) HJ
   (e) ID

8. Adam Smith thought that royal monopolies
   (a) were an expression of free enterprise, and therefore a good thing.
   (b) were an exception to the Sherman Anti-Trust Act.
   (c) were, on the whole, bad.
   (d) provided jobs and thus were a justifiable use of government interference in the marketplace.

9. Suppose Policy A results in “a Potential Pareto Improvement which is not an actual Pareto Improvement”, whereas Policy B results in an “Actual Pareto Improvement.” Which of the following is true?
   (a) Policy A would win unanimous approval if put to a vote, but Policy B would not win unanimous approval if put to a vote.
   (b) Policy A would not win unanimous approval if put to a vote, but Policy B would win unanimous approval if put to a vote.
   (c) Neither Policy A nor Policy B would win unanimous approval if put to a vote.
   (d) Both Policy A and Policy B would win unanimous approval if put to a vote.
10. In Figure 2, the quantity imported with a tariff in place is
   (a) EF
   (b) FG
   (c) CM
   (d) MH
   (e) NH

11. In Figure 2, the quantity imported without a tariff in place is
    (a) EF
    (b) FG
    (c) CM
    (d) MH
    (e) NR

12. In Figure 2, the amount of inefficient production with a tariff in place is
    (a) EG
    (b) CM
    (c) MN
    (d) NR
    (e) MR

13. If one ignores the part of Figure 2 to the right of point K, what are the domestic firms’ costs of production when there is a tariff in place?
    (a) BFKA
    (b) BMLA
    (c) EFKA
    (d) BMNKA
    (e) CMFKA
14. If one ignores the part of Figure 2 to the right of point K, what do consumers pay for this good without a tariff in place?
   (a) EFB
   (b) CMB
   (c) EFKA
   (d) CNKA
   (e) CMFE

15. If one ignores the part of Figure 2 to the right of point K, what is the change in the profits of domestic firms with versus without a tariff?
   (a) MFN
   (b) EFNC
   (c) EFMC
   (d) CMLA
   (e) BFKA

16. If one ignores the part of Figure 2 to the right of point K, what is the change in what consumers pay for this commodity with versus without a tariff?
   (a) CMB
   (b) MFN
   (c) BFKA
   (d) EFB
   (e) EFNC

17. The Arrow Impossibility Theorem implies that
   (a) all social decision rules contain imperfections.
   (b) it is never possible to make good social decisions.
   (c) it is impossible to improve on “majority voting” as a way of making social decisions.
   (d) cost-benefit analysis is the best tool for making hard social decisions.
18. Suppose a correct and compete cost-benefit analysis shows that the benefits of adopting Policy A exceed the costs of adopting it.

(a) It is possible to make everyone better off by adopting Policy A and simultaneously adopting other policies which take money from those who gain from Policy A and give it to those who lose from Policy A.

(b) It is impossible to make everyone better off by adopting Policy A and simultaneously adopting other policies which take money from those who gain from Policy A and give it to those who lose from Policy A.

(c) Choice (a) is true, and it is also certainly true that the cost-benefit analysis would support Policy A even if the society's distribution of income were to change.

(d) Choice (b) is true, and it is also certainly true that the cost-benefit analysis would support Policy A even if the society's distribution of income were to change.

19. For society as a whole, discounting the future is

(a) justifiable to the extent that the economy grows over time, and justifiable to the extent that the discounting represents pure undervaluation of the future.

(b) unjustifiable to the extent that the economy grows over time, and justifiable to the extent that the discounting represents pure undervaluation of the future.

(c) justifiable to the extent that the economy grows over time, and unjustifiable to the extent that the discounting represents pure undervaluation of the future.

(d) unjustifiable to the extent that the economy grows over time, and unjustifiable to the extent that the discounting represents pure undervaluation of the future.
20. The "Conservationist's Dilemma" is that
   (a) increases in the interest rate sometimes harm the environment and sometimes help the environment.
   (b) increases in the interest rate harm the environment but help the economy.
   (c) increases in the interest rate help the environment but harm the economy.
   (d) neither (a) nor (b) nor (c) is true.

21. Use Values include
   (a) bequest motives
   (b) existence value
   (c) both (a) and (b)
   (d) neither (a) nor (b)

22. "If Project XYZ is adopted, wetlands will be destroyed, and it will cost $10,000,000 to construct similar wetlands in another place." This is an example of which approach to valuation?
   (a) Dose-Response
   (b) Replacement Costs
   (c) Mitigation Costs
   (d) Opportunity Costs

23. What will happen to the value of an environmental asset as calculated by the Travel Cost approach if "house purchase decisions" are ignored?
   (a) The Travel Cost approach's value will be more than the correct value of the asset.
   (b) The Travel Cost approach's value will be less than the correct value of the asset.
   (c) Choice (a) is true, and in addition, option value is negative.
   (d) Choice (b) is true, and in addition, option value is negative.
24. Hedonic Pricing could be used to put a dollar value on
   (a) the negative effect of living near a polluted lake.
   (b) the positive effect of living near a national park.
   (c) both (a) and (b).
   (d) neither (a) nor (b).

25. Contingent Valuation is
   (a) a revealed preference approach, and can be subject to vehicle bias.
   (b) an expressed preference approach, and can be subject to vehicle bias.
   (c) a revealed preference approach, and cannot be subject to vehicle bias.
   (d) an expressed preference approach, and cannot be subject to vehicle bias.

26. The general public appears to worry more about the deaths of 100 people in one incident than the deaths of 100 people in 100 separate incidents. This is an example of
   (a) the fallacy of optimism
   (b) expected value
   (c) expected utility
   (d) disaster aversion

27. Suppose a risky outcome has a 50% chance of returning $10 and a 50% chance of returning negative $5.
   (a) The expected value of this lottery has to be negative $2.50.
   (b) The expected utility of this lottery has to be negative $2.50.
   (c) Both (a) and (b) are true.
   (d) Neither (a) nor (b) is true.
28. "In the absence of any coordination costs, the amount of pollution will be the same if citizens have a right to clean air, or if firms have a right to pollute." This is an expression of what idea?

(a) The Ellsberg Paradox.
(b) The Allais Paradox.
(c) The Condorcet Paradox.
(d) The Coase Theorem.

29. The "Polluter Pays Principle" is an important guide to government environmental policy in

(a) Europe.
(b) the USA.
(c) both (a) and (b).
(d) neither (a) nor (b).

30. A fee based on the amount of pollution coming out of a smokestack is an example of

(a) an emission charge.
(b) a product charge.
(c) an indirect alteration of prices or costs.
(d) a new market in pollution permits.

31. "Bans" are low and "Cost-Benefit Analysis" is high in:

(a) equity
(b) efficiency
(c) administrative simplicity
(d) political acceptability