

Econ 4545: Fall 2016: In-class part of the final.

Dec 12, 2016

There are 9 pages and 37 questions (make sure you have all of the question)

1. Imagine that The Donald introduces a carbon tax (a tax on the carbon content of fuels). He is worried about GW.  
Imagine that in terms of gasoline this increases the Federal tax on gasoline by 50 cents. (Choose the answer that is both correct and most informative). This will
  - A) Increase the price at the pump (tax included) by 50 cents because gasoline (and oil) is produced by an oligopolistic industry that has the power to pass along the price increase to the consumer.
  - B) Increase the price at the pump (tax included) by 50 cents.
  - C) Increase the price at the pump (tax included) by less than 50 cents.
  - D) Increase the price at the pump (tax include) by less than 50 cents because the aggregate demand curve for gasoline is downward sloping and gasoline (and oil) are produced in an oligopolistic industry.
  
2. Imagine that currently 100 people visit Yellowstone every day but that the efficient number from society's perspective is 80. (Which of the following answers is both correct and most informative). Given all this, the number could be reduced from 100 to 80 by increasing the U.S. tax on gasoline.
  - A) For sure.
  - B) Definitely not possible.
  - C) Probably
  
3. In class we had a road example and a park example, where if the park and road were owned by a profit-maximizing firm, it would charge, to maximize its profits, the toll/entry fee that would achieve the efficient number of users. And, in the examples in class, total profits equaled total revenues because we assumed there was no maintenance costs associated with the road and park. Further assume it is the short-run in that the firm cannot sell the park or road.  
Which of the following statements is both correct and most informative.
  - A) The profit-maximizing toll/entry fee would be different if there was a maintenance cost that increased with the number of users.
  - B) The profit-maximizing toll/entry fee would be the same if there was a maintenance cost that increased with the number of users.

4. In class we had a road example and a park example, where if the park and road were owned by a profit-maximizing firm, it would charge, to maximize its profits, the toll/entry fee that would achieve the efficient number of users. And, in the examples in class, total profits equaled total revenues because we assumed there was no maintenance costs associated with the road or park. Further assume it is the short-run in that the firm cannot sell the park or road.  
Which of the following statements is both correct and most informative.
- A) The profit-maximizing toll/entry fee would be the different if there was a fixed maintenance cost (a cost independent of the number of users).
- B) The profit-maximizing toll/entry fee would be the same if there was a fixed maintenance cost (a cost independent of the number of users).
5. Assume Jim and Mary are stuck together in the same small room: they can't leave. Jim wants to smoke. His smoking would make him better off and Mary worse off. If he had to, Jim would have paid \$20 for the opportunity to smoke. Mary hates second-hand smoke but is poor, so would have let him smoke for \$15. His smoking would be
- A) Efficiency decreasing
- B) Not enough information to tell
- C) Efficiency increasing
6. Consider the park example from class, but modified a bit, where the average benefits of watching TV is always \$10, but the average benefits from going to the park is  $ab_p(v)=28-v$ , where  $v$  is the number of people in the park. Assume society consists of 100 people. The demand function for number of people in the park as a function of the fee is  $v^d=v^d(\text{fee})=28-\text{fee}$ ?
- A) Not correct
- B) Correct
7. WTP (willingness-to-pay) is a non-market valuation technique.
- A) False
- B) True
8. Which of the following statements are both correct and most informative with respect to the hedonic technique.
1. It is a stated-preference technique.
2. It does not measure nor estimate non-use values.
3. It involves asking people WTP type questions.
- A) all three statements are correct
- B) 3 and 2 are correct; 1 is not correct.
- C) 2 is correct; 1 and 3 are incorrect
- D) 1 and 2 are correct; 3 is incorrect.

9. Imagine you are critiquing a hedonic property-value study that estimated wtp for environmental quality. You might worry that the the estimates are biased because the study only looked at variation in property values.
- A) False
  - B) True
10. (now on Aplia quiz.) Santa Claus is a mythical creature that delivers presents to children on Christmas Eve, but only to children who believe in him, have been good, and celebrate Christmas. Santa Claus on Christmas Eve is
- A) Not a public commodity because his services on Christmas Eve are excludable
  - B) Not a public commodity because his services on Christmas Eve are not congestible.
  - C) A good example of a public commodity because his time is not congestible.
  - D) A good example of a public commodity because his time is not rivalrous.
11. The questions on the November ballot where we voted whether to increase taxes to fund school-improvement programs are examples of CVM questions?
- A) Incorrect
  - B) Correct
12. The market will fail in the allocation of a common-property resource that is not scare.
- A) false
  - B) true
13. (Viviana) A good can be both non-congestible, and excludable.
- A) Yes this is possible and an example is Donald Trump in his capacity as our President.
  - B) No, this is not possible.
  - C) Yes this is possible and an example is HBO or some other cable station.
14. Access to an existing public commodity can be regulated
- A) No
  - B) Yes

15. Imagine a recreational site is improved in quality. (Choose the answer that is both correct and most informative).
- A) This improvement will increase the Marshallian CS measures for substitute sites.
  - B) The Marshallian CS measures for substitute sites could increase or decrease. There is not enough information to tell which way it will go.
  - C) This improvement will increase the Marshallian CS measures for substitute sites and decrease the Marshallian CS measures for complimentary goods.
16. (new question). Imagine gubers are a public commodity that can be produced at the constant cost of \$30 a unit.  
Assume society consists of Fred, Mabel, and Ralph.
1. Fred's marginal wtp for additional widgets is \$35 for the first, \$25 for the second, and zero for each additional unit.
  2. For Mabel they are \$5, \$5, \$0, and then -\$5 for each additional unit.
  3. For Ralph, they are constant at \$10.
- The efficient number of widget to produce is?
- A) 1
  - B) 3
  - C) 2
  - D) 0
17. Consider Rocky Mt. National park. In lecture when we considered efficiency and an entry fee set to achieve the efficient amount of congestion in the park, we implicitly, and restrictively, assumed that everyone visits for the same amount of time. For the purpose of this question assume an entry fee is good for one entry only.  
(Choose the answer that is both correct and most informative.)
- A) No we did not make this restrictive assumption. The efficient entry fee remains the same even if other different visitors stay for different amounts of time. .
  - B) Yes we made this restrictive assumption. And if we had not made it, the efficient amount of congestion could would not be achievable with such an entry fee.
  - C) Yes we made this restrictive assumption.
18. To determine whether a proposed policy is efficiency increasing, one would check
- A) The sum of the EV's for the proposed policy.
  - B) The sum of the CV's for the proposed policy

19. Imagine that you have been damaged by an oil spill. You would be made whole if you were paid your
- A) Your EV for the oil spill
  - B) Your CV for the oil spill
  - C) The absolute value of your CV for the oil spill.
  - D) The absolute value of your EV for the oil spill
20. So imagine that there are three congestible parks, and assume that there are 100 people that are each choosing which park to go to. Further assume that everyone is identical in terms of preferences and constraints, and that everyone prefers more to less congestion. Assume all of the parks are CP resources. In equilibrium? (Choose the answer that is both correct and most informative.)
- A) everyone will be in the same park, and this will be the efficient outcome.
  - B) the marginal benefits will be equal across the three parks.
  - C) everyone will be in same park, but this will not be the efficient outcome.
  - D) the average benefits will equal across the three parks.
21. The presence of an external negative effect implies the market is failing.
- A) false
  - B) true
22. So imagine that there are three congestible parks, and assume that there are 100 people that are each choosing which park to go to. Further assume that everyone is identical in terms of preferences and constraints, and that everyone prefers less to more congestions. Assume all of the parks are CP resources. When the 100 people are efficiently allocated between the three parks (Choose the answer that is both correct and most informative.)
- A) Marginal benefits will be equal across the three parks.
  - B) Average benefits will be equal across the three parks
  - C) Probably marginal benefits will be equal across the three parks: probably rather than for sure because one or two or the parks might be so congestible that no one goes to it.

23. Consider the park example from class where the average benefits of watching TV is always \$10, but the average benefits from going to the park is  $ab_p(v)=28-.0006v$ , where  $v$  is the number of people in the park. Which of the following statement is both correct and most informative?
- A) The total benefits from the park are  $tb_p(v)=28v-.0006v^2$  and the marginal benefits from the park are  $mb_p(v)=28-.0012v$
  - B) The average benefits of watching TV are always greater than the average benefits from the park.
  - C) The marginal benefits from the park are  $mb_p(v)=28-.0012v$
  - D) The total benefits from the park are  $tb_p(v)=28v-.0006v^2$
24. The difference between Edward's definition of a public commodity and some less-restrictive definitions rests on whether you can exclude yourself from consuming the public commodity. (Choose the answer that is both correct and most informative).
- A) No. This is not the distinction between Edward's definition and less-restrictive definitions of a public commodity.
  - B) Yes, Edward says that if a commodity is a public commodity everyone must consume all of the units produced.
  - C) Yes
25. (now on Aplia) Based on Edward's definition of a public commodity, sufficient conditions for a commodity to be a public commodity are
- A) non-congestible and non-excludable
  - B) none of the properties listed in any of possible answer are sufficient to make a good a public good.
  - C) non-congestible, non-excludable, and everyone must consume every unit produced
  - D) non-rivalrous
26. In our story about taming the Wild West, the arrival of John Wayne decreased the farmer's cost of protecting his property rights.
- A) incorrect
  - B) correct
27. An individual's equivalent variation (EV) for a proposed project is the amount of money that would need to be subtracted from her income in the proposed state to make her indifferent between the proposed state (with the subtraction) and the initial state.
- A) Incorrect
  - B) Correct

28. For a deterioration, the EV is less than the CV.
- A) Incorrect
  - B) Correct
29. Imagine that there are two roads to Vail and that 100 cars need to make the trip. One road always takes 120 minutes no matter how many cars are on the road. For the other road, **total** travel time by all of the cars on that road is  $20c+2c^2$ , where  $c$  is the number of cars on that road. Both roads are free CP resources. (Which of the following answers is both correct and most informative?)
- A) The CP equilibrium number of cars on the congestible road is approximately 4.
  - B) The CP equilibrium number of cars on the congestible road is 50, and the efficient number is 25
  - C) There is not enough information to determine both the CP equilibrium number on the congestible road, and the efficient number.
  - D) The efficient number is cars on the congestible road is 25
  - E) The CP equilibrium number of cars on the congestible road is 50
30. Consider the park example from class where the average benefits of watching TV is always \$10, but the average benefits from going to the park is  $ab_p(v)=28-.0006v$ , where  $v$  is the number of people in the park. Assume society consists of 10 people. The efficient allocation of these ten people between the park and TV is
- A) Some in the park, some watching TV.
  - B) All ten in the park
31. If they could, some people would exclude themselves from experiencing a public good.
- A) Incorrect
  - B) Correct
32. Which of the following statements are both correct and most informative with respect to the contingent-valuation method (CVM)?
1. It is a stated-preference technique.
  2. It estimates total value.
  3. It involves asking people WTP questions.
- A) 2 and 3 are correct, but 1 is incorrect
  - B) All three statements are incorrect.
  - C) All three statements are correct.
  - D) 3 is correct, but 1 and 2 are incorrect.

33. Because Americans eat a lot of meat, and because meat production uses more resources to produce protein than other types of food, food production in the U.S. is necessarily inefficient.
- A) False
  - B) True
34. So imagine that there are three congestible parks, and assume that there are 100 people that are each choosing which park to go to. Further assume that everyone is identical in terms of preferences and constraints, and that everyone prefers less to more congestion. Assume all of the parks are CP resources. Assume in equilibrium that at least one person will go to each park. Given all this, in equilibrium? (Choose the answer that is both correct and most informative.)
- A) In the marginal benefits of being in a park will be equal across the three parks
  - B) the average benefits of being in a park will be equal across the three parks because average cost equals marginal cost.
  - C) the average benefits of being in a park will be equal across the three parks
35. (Kas\_modified from first midterm) Society is made up of only Jane and wolves. Jane likes to run with the wolves and deer, but they don't like to run with her. The wolves are indifferent to Jane running with the deer. Note that the deer are not members of society. Currently, Jane is not allowed to run with the deer or the wolves. Which of the following changes would **necessarily** increase efficiency? (Choose the answer that is both correct and most informative.)
- A) The situation is already efficient.
  - B) Jane is allowed to run with both the deer and the wolves.
  - C) Jane is allowed to run with the deer.
  - D) Jane is allowed to run with the wolves.
36. Which of the following statements are both correct and most informative with respect to the travel-cost technique?
1. It is a revealed-preference technique.
  2. It estimates total value.
  3. It can't work if everyone lives in the same place.
- A) 1 and 3 are correct; 2 is incorrect.
  - B) 1 and 2 are correct; 3 is incorrect.
  - C) 1 is correct; 2 and 3 are incorrect.
  - D) All three are correct



37. Consider the following condition. The benefit/cost ratio for a project is greater than one.  
(Which of the following statements is both correct and most informative?)
- A) This is necessary and sufficient for the project to be efficiency increasing.
  - B) This is a necessary condition for the project to be efficiency increasing.
  - C) This is a sufficient condition for the project to be efficiency increasing.

## Answer Key

1. D
2. C
3. A
4. B
5. C
6. A
7. A
8. C
9. B
10. A
11. A
12. A
13. C
14. A
15. C
16. C
17. B
18. B
19. D
20. A
21. A
22. C
23. A
24. B
25. C
26. B
27. A
28. A
29. B
30. B
31. A
32. C
33. A
34. C
35. C
36. C
37. A