Econ 4545 Second Midterm (first part)
2015
Version A
This part of your exam is worth 60% of the exam grade.

Comments added November 14, 2015
I have commented on the questions that people had the most trouble with.

This exam was probably long, as Kaz said, "too much reading."
In my defense my principles students answer approximately 50 such questions in 75 minutes.

I will likely make an adjustment for length, but only for people who attend the review sessions for this exam.

The answer for the question about market vs. non-market good was miscoded, so I will add one correct response to everyone's number of correct answers.

1. If the CV was the amount of money that had to be added to your income in the new state to make you indifferent between the new state and the initial state
    A) It would be positive for improvements and negative for deteriorations
    B) It would be negative for improvements and positive for deteriorations

        This not how the CV is defined. But if it were the CV for an improvement would be negative.

2. The track meet is ready to start. Holly, a track star, has already had 5 cans of Red Bull, her choice, and she is sure a 6th can is a bad idea. That said, her wimpy coach, who has no control over her, wants Holly to drink a 6th can. Given how rights are apportioned, what is the appropriate measure of how much she is damaged, in dollar terms, if she drinks the 6th can?
   A) How much she would pay to not have to drink the 6th can
   B) Two of the other three answers are equal, so both are correct
   C) How much she would have to be paid to voluntarily drink the 6th can
   D) The amount the 6th can will decrease her utility

   Holly controls how much Red Bull she drinks, not her coach. If she drinks the 6th can she is worse off (her utility decreases). But how much is she worse off in $? How much she would have to be paid to voluntarily drink it.
   Holly owns her body, so would have to be paid to ingest something she did not want to ingest.

   In contrast, what if the coach has the control (Holly does not have complete ownership over her body). In that case the coach has the property rights and the damage to Holly is what she would pay the owner of the property right to not drink the 6th can.

   Damage depends a lot on property rights.

3. Jeanette is willing to pay $100 for the first pair of shoes, $80 for the second pair, $55 for the third, and $30 for the fourth. If each pair costs $50, Jeanette will buy _____ pairs of shoes and her total consumer surplus from the shoes is _____.
   A) 4; $85
   B) 3; $85
   C) 3; $150
   D) 3; $235

4. Consider my Coeur d'Alene two-site travel cost model. Consider an improvement in the quality of fishing at the North-fork site. Which alternative is most likely?
   A) Demand for trips to the South fork will decline but WTP for each of those trips will increase.
   B) The demand for trips to the South fork site decrease at each cost and WTP for each additional trip to the North fork will increase.
   C) The supply curve for trips to the North fork will increase and WTP for each additional trip to the North fork will increase.
   D) WTP for trips to the South Fork will increase.

5. Consider the lecture about mining injuries in the Coeur d'Alene Basin where Edward assumed two fishing sites: the North Fork and the South Fork. Assume, as did Edward, that the two sites are substitutes. Initially assume both sites are uninjured (not polluted) and assume George's travel costs are such that he currently fishes both sites. Now assume the South Fork site is injured/polluted. How will this injury at the South Fork affect the consumer's surplus George get from his trips to the North Fork? Choose the best answer.
   A) It will decrease
   B) There is not enough information to tell.
   C) It will remain the same.
   D) It will increase

   Look at the graphs on the lectures for the South Fork. The injury to the South Fork shifts the demand curve for trips to the North Fork to the right, increases the area under that curve above the trip cost.

6. Imagine a world where there are only use values. Assume zero transportation costs. If the intent is to minimize the damage to people from the disposal of toxic wastes, where should they be dumped? Choose the answer that is both correct and most informative.
   A) There is not enough information provided to determine where. It will depend on people's preferences.
   B) There is not enough information provided to determined where
   C) They should be dumped in the most remote wilderness area.

7. Fred's demand curve for trips to a recreational site is trips=a+b(trip cost). If cost is zero he takes 15 trips. If cost is $5 he takes five trips. If the cost is $6 a trip, Fred will take ___ trips and experience a consumer's surplus of ___.
   A) 2, $39
   B) 3, $36
   C) 3, $72
   D) 2, $78

8. Edward discussed in class estimating damages to the Coeur d'Alene Indian tribe from pollution injuries to the Coeur d'Alene River.   The injuries occurred quite a while ago and forced the tribe to leave the river basin and caused them to lose their river-based way of life. Back then, the tribe was quite poor in terms of US dollars and much of what they consumed was not purchased with $US. Given all this, one would expect that the tribe's willingness-to-pay to prevent the injuries would be similar in magnitude to their willingness-to-accept the injuries.
   A)   True
   B)   False

9. Consider a policy that saves elephants from extinction. Which statement is both correct and most informative?
   A)   The values of this policy (both positive and negative) will be predominately non-use values.
   B)   Most people who value the policy (be it negative or positive) will experience both use and non-use value.
   C)   The values of this policy (both positive and negative) will be predominately use values.
   D)   For some people the value (be it positive or negative) will be predominately non-use value for others it will be predominately use value.

10. Your demand curve for fishing trips to the Colorado river is t=a(cost)+b(catch) where t is trips, cost is your cost per trip in $ and catch is the catch rate per hour. It costs you $100/trip, your catch rate is 10, and a is -.5.
   What is your WTP to not have the river closed to fishing? Which of the following statements is both correct and most informative?
   A)   If b is 7 it is more than $2500
   B)   If b is 5, it is zero. If b is 10 it is $2500
   C)   If b is 5 it is $10.
   D)   If b is 10 it is $5000

11. Consider the statement, "Pandas are valuable and should be saved from extinction, even though people do not care one way or the other about pandas."   This notion of "value" is consistent with how economists define value.
   A)   True
   B)   False

       Only one person answered true.

12. You do a CVM survey to estimate WTP for project A. God tells you no one has a CV for project A that is greater than $40. You survey a 100 people and ask them if they would pay $20. 25% say yes. Which of the following options is both correct and more informative.
    A) Average WTP is no less than $5
    B) Average WTP is no more than $25
    C) Average WTP is no more than $25 and no less than $5

    God did not tell us that no one was damaged by project A, so some might have CVs for A that are large negative number.

    The average could be way less than $5. The lower bound estimate of is minus infinity. (.75 multiplied by infinity) +(.25 multiplied by $20)

    But we can determine an upper bound because God told us it was not more than $40. The upper bound estimate is .75 multiplied by 20 plus .25 multiplied by 40, which totals $25

    You get a finite lower-bound estimate only if you are willing to assume (or God tells you) the lowest number it can be. This is problematic because most projects and policies make some people worse off.

13. For an economist, the statement, "I value my friendship with Marc more than I value my friendship with Don." simply means my WTP to have Marc as a friend is greater than my WTP to have Don as a friend.
    A) True
    B) False

14. A choice question is a specific type of referendum CVM question?
    A) No
    B) Yes

See the review question on choice questions and consider our examples in class of choice questions. With choice questions each respondent typically answers more than one question (in referendum CVM it is only one). In each choice question one is presented with two or more alternatives (in referendum CVM there only two). In a choice question neither alternative is necessarily the status quo (in referendum CVM one of the alternatives must be the status quo.) In choice questions the attributes of the policy vary across the alternatives (in referendum CVM only one policy is considered).

Referendum CVM is a specific type of choice question, a very restrictive type.

With choice experiments one values policies as a function of the attributes of the policy compared to another policy's attributes (possibly the status quo), so is much more flexible.

One is asked hypothetical questions comparing different policies, neither of which is necessarily the status quo.

In referendum CVM everyone is asked about one identical policy.

See my essay question about valuing GW.

15. Consider the famous line from an advertisement for Camel cigarettes, "I would walk a mile for a Camel." Choose the alternative that is both correct and most informative.
    A) The quote tells us nothing about the guy's willingness-to-pay for a cigarette.
    B) The guy's willingness-to-accept a cigarette is more than a mile's walk.
    C) The guy's willingness-to-pay for a cigarette is at least the time and effort of walking a mile.
    D) The guy's willingness-to-pay for a cigarette is the time and effort of walking a mile.

16. Consider where people live and assume a world of no moving costs. In addition, assume location specific amenities and disamenities, some of which can be individual specific (stuff like whether you have a mom and, if so, where she lives). Further assume everyone has the same preferences and the same income. If people are experiencing different levels of utility, the system must be in disequilibrium?
    A) No
    B) Yes

17. For a market commodity _____ is exogenous and quantity is _____. For a nonmarket commodity _____ is exogenous and _____ is endogenous. (choose the best fill-ins)
    A) price, exogenous, price, quantity
    B) price, endogenous, price, value
    C) price, endogenous, quantity, price
    D) price, endogenous, quantity, value

18. The track meet is ready to start. Holly, a track star, has already had 5 cans of Red Bull, and she is sure a 6th can is a bad idea, but her coach, the ultimate dictator/controller, and who God put in charge of everything, is going to force her to drink a 6th can. Given how rights are apportioned, what is the appropriate measure of how much she is damaged, in dollars, from drinking the 6th can? Which is the best answer?
    A) How much money she would pay to not have to drink the 6th can
    B) The amount the 6th can will decrease her utility
    C) How much money she would have to be paid to voluntarily drink the 6th can
    D) Two of the other three possible answers are equal to one another, so both correct

    Compare this one to the other Holly question.

19. You do a CVM survey to estimate WTP for banning cigarettes. God tells you no one has a CV less than zero and no one has a CV greater than $100. You survey 100 randomly-selected people and ask them if they would pay $20 to have cigarettes banned. 25% say yes. You survey a different 100 randomly-selected people and ask them if they would pay $50 to ban cigarettes. 15% say yes. Which of the following statements is both correct and more informative?
    A) Three of the other answers are correct.
    B) None of the other answers are correct.

    C) Average WTP for banning cigarettes is at least $9.50
    D) Average WTP for banning cigarettes is no less than $9.50

    E) Two of the other answers are correct.

    This is the question we had to modify because it had too many options for the scantron. C and D say the same thing, E correct, but logically speaking A is also correct.

20. If you only know every individual's EV for a proposed policy, you have enough information to determine whether the proposed policy would be a Potential Pareto Improvement.
    A) Maybe
    B) Yes
    C) No

21. Which policy is likely a more efficient method of limiting 1000 people a day to Rocky Mountain National Park?
    A) An online reservation system for each day. Each day can be reserved up to year in advance, and the 1000 top $ bidders get the tickets, each paying their bid amount.
    B) Each day charging a low entry fee to the first 1000 people who show up at the gate and are willing-to-pay this price, then closing the gate.
    C) An online reservation system for each day, first-come first served. Each day can be reserved up to a year in advance. The price is zero and the park only admits the individual named on the ticket.
    D) Each day, letting in for free the first 1000 people who show up at the gate.

    See the review question that asks this. Efficiency requires that the park is visited each day by the 1000 with the highest WTP to be there.

    A) Guarantees this.

    I was happy that no one answered D. Most of the people who get in have a low value of time.

    C) Guarantees that of the group who showed up at the gate only those with a WTP greater than the entry price get in, but there might be a lot of other people who had a higher WTP who did not show up because they did not want to travel for days and spend a shit-load of time in line, only to not get in.

    B would turn into A from an efficiency perspective if one could resell tickets on Ebay (like people do for concerts).

22. For reducing the rate of global warming by some specific amount, each individual's EV for the reduction is always less than their CV for the reduction. And this is true both for individuals who are made better off by the reduction and individuals who are made worse off by the reduction.
    A) Incorrect
    B) Correct
An individual's CV for any change is always less than or equal to their EV for the change.

23. A policy to reduce the rate of global warming will cause the price of skate boards to increases by $10. Currently they sell for $120 and 1 million are sold. Skate boards have to be replaced once a year. People who skate board, or might, do not care about global warming. The $10 price is the only way that skate boarders and potential skate boarders are affected by the policy. Which of the following options is both correct and most informative?
    A) People who skate board, or might, will be damaged by the policy to the tune of at least $10 a year each.
    B) People who skate board, or might, will be damaged by the policy
    C) People who skate board, or might, will be damaged by the policy, but the damage to them will be no more than $10 million a year

    This question is from the review questions, where I asked and answered a question about a policy that increased the price of artichokes.

    Since the only effect on skateboarders that they care about is that the price will go up by $10, the worse thing would be if they continue to buy the same number at the higher price. In which case they would bay $10 more per year for skate boards. The damage will be less than this if the demand function for skateboards is downward sloping, so they buy fewer at the higher price. That is, the only effect on them is the price increase and they mitigate the damage to them by buying fewer at the higher price.

24. According to U.S. law, the appropriate measure of damages used to compensate victims for the damages from environmental injuries is
    A) Willingness to pay: what those damaged would pay to restore the resource to its pre-injury state.
    B) Willingness to accept: what those damaged would pay to restore the environmental resource to is pre-injury state
    C) Willingness to accept: what those damaged would have to be compensated to agree to not restore the environmental resource to its pre-injury state
    D) Willingness to pay: what those damaged would have to be compensated to agree to not restore the environmental resource to its pre-injury state

    Many of you got this wrong. Under the law damages are WTP to eliminate the damages not WTA (what you would have to be paid to be made whole)

    I noted how it is kind of unfair, particularly for poor people. The rationale for using WTP for elimination of the damages it that it is easier to estimate than WTA the damages. And, politically speaking the business lobby prefers WTA because it is less money.

25. Edward is holding a pointed stick. Edward asks Austin how much he would have to pay Austin for Austin to allow Edward to poke him in the leg with the stick. Note that Austin is a poor T.A. with little wealth. Austin's reply represent his _____
    A) WTP, which is bounded from above by wealth.
    B) WTA, which is bounded from above by his wealth.
    C) WTP, which is **not** bounded by wealth.
    D) WTA, which is **not** bounded by wealth.

26. A move to Commerce City from Boulder would make you worse off. Your WTP to not move is bounded from above by your income/wealth.
    A) True
    B) False

27. I am a firm that needs to dump my toxic waste in a stream, only one stream. The toxic waste will kill the fish in that stream.   I know that after I do it, I will be sued by the Federal Government and forced to pay damages in the sum of total lost consumer's surplus to everyone who fished at the site before I dumped. Ignoring the varying cost of transporting the toxic waste to different streams, which of the following stream options would be my best choice if my intent is to **maximize** the damages I pay?
    A) a polluted stream with few fish located near a good number of pristine trout streams with lots of fish
    B) a polluted stream with few fish, located near a good number equally polluted stream with few fish
    C) a pristine stream with lots of fish but few good substitutes.
    D) a pristine stream with lots of fish and a lot of good substitutes because many anglers will get almost as much utility by fishing at one of those close substitutes.

28. It costs residents of Boulder a lot more to ski Aspen for a day than it costs residents of Aspen. Which statement is both correct and most informative? (When answering this question, "cost" means variable cost, what it costs them extra for that Aspen ski day.) (On Aplia quiz on consumer's surplus)
    A) Residents of Boulder necessarily get less consumer's surplus from their Aspen ski days than Aspen residents get from their Aspen ski days.
    B) Given the information provided little can be concluded about how much consumer's surplus an Aspen resident gets from her Aspen ski days compared to how much a Boulder resident gets from her Aspen ski days.
    C) If a resident of Boulder and a resident of Aspen both have the same downward sloping demand function for Aspen ski days ($ on the vertical axis), the Aspen resident will get more consumer's surplus from his Aspen ski days than does the Boulder resident.
    D) Since they pay more per day to ski Aspen, Boulder residents who ski Aspen must value skiing Aspen more highly than do residents of Aspen.

29. I am a firm that needs to dump my toxic waste in a stream, only one stream. I know that after I do it, I will be sued by the Federal Government and forced to pay damages in the sum of total lost consumer's surplus to everyone who fished at the site before I dumped. Ignoring the varying cost of transporting the toxic waste to different streams, which of the following stream options would be my best choice if my intent is to minimize the damages I pay?

A) a polluted stream with few fish, located near a good number equally polluted streams.

B) a pristine stream with a lot of good substitutes because many anglers will get almost as much utility by fishing at one of those close substitutes.

C) a pristine stream with few good substitutes because many anglers will then no longer care about fishing.

D) a polluted stream with few fish located near a good number of pristine trout streams.

I want to minimize the damages to anglers (in $) that I will have to pay in the settlement. I want to dump it in a place where few fish. This would be a lousy fishing site surrounded by great sites.

If I was perverse and wanted to maximize my damages I would go with a great site that had few good substitutes in terms of quality and proximity.

A bunch of you went with A, a polluted steam with few fish, but if the surrounding sites are also trashed diehards will still fish there is it is close to their house. Compare A and D.

Why did a lot of people get question 27 correct and 29 wrong? 29 was the easier of the two. Maybe ran out of time.

Answer Key

1. B
2. C
3. B
4. B
5. D
6. C
7. B
8. B
9. D
10. B
11. B
12. B
13. A and E
14. A
15. C
16. A
17. C
18. A
19. A
20. B
21. A
22. A
23. C
24. A
25. D
26. A
27. C
28. C
29. D