This exam has 51 questions. Make sure you have 51 questions, and answer all 51 questions.

When answering a true/false question ignore the words “true” and “false” on the bubble sheets. That is sometimes “true” will be bubble A and sometimes “true” will be bubble B.

Make sure we have given you the correct colored bubble sheet for Version 1.

I have commented on some of the questions that people had trouble with. Note that many of the questions were straight off of old exams

1. Consider Wilbur's demand curve (entry fee on the vertical axis) for sun-bathing trips to the beach at the Boulder Reservoir, the "Res. The City of Boulder (they own the Res) raises the entry fee from $5 to $7. This will
   A) cause Wilbur's demand curve for sun-bathing trips to the "Res" to shift to the right
   B) cause Wilbur's demand curve for sun-bathing trips to the "Res" to shift to the left
   C) not shift Wilbur's demand curve for sun-bathing trips to the "Res."

2. (Paige) Consider the following 4 assumptions: (1) happy vegans dance, (2) Usher is a vegan, (3) Usher is a pop star, and (4) other pop stars are happy whenever Justin Bieber gets dumped by a girlfriend. Which of the following is a prediction that follows from these assumptions?
   A) Usher is happy
   B) None of the other three are predictions
   C) Usher is a pop star
   D) Usher dances

3. A society's production-possibilities frontier indicates how much of the different goods society wants.
   A) True
   B) False

4. (Sam). For a society, consider their state of technical knowledge for all the ways to produce stuff. A change in their state of technical knowledge could cause their production possibilities curve (their PPF) to shift in.
   A) Yes
   B) No
5. The existence of government intervention often suggests:
   A) markets do not always achieve efficient results.
   B) individual actions have no side effects.
   C) equilibrium will be achieved through this intervention.
   D) markets can efficiently manage the allocation of goods.

6. I have $20 in my pocket and it will still be there in the morning if I do not spend it tonight. My first choice is to go out tonight and spend the $20 on drinks. I know if I go out drinking I will not get in a fist fight with my roommate. I know I will fight him if I stay home. My second choice is to stay home, spend the $20 on pizza and some music downloads, and fight my roommate. Note that I enjoy getting into fights with my roommate. Given all this, the opportunity cost of my going out, measured in dollars, is greater than $20
   A) True
   B) False

   The pizza and beer is valued at at least $20, otherwise I would not have purchased it under the second-ranked alternative. I enjoy fighting my roommate, so I have some dollar wtp for it as well. So, the value of what I gave up is greater than $20.

7. Donny Downhill, a student in class, loves to ski but hates to ski Vail, no matter the cost. That said, his significant other, Marc Mogul, loves Vail, so Donny skis Vail once a year as long as the cost is $100 or less. Donny's demand function for Vail ski days (dollars on the vertical axis) is (Choose the answer that is both correct and most informative)
   A) Always vertical
   B) Always horizontal
   C) Sometimes vertical, sometimes horizontal
   D) None of the other answers are correct.

8. Our text, Krugman and Wells, costs $100. Martha's willingness-to-pay for one copy of the text is $110, and zero for additional copies. So, her consumer surplus for having the text available for $100 is $10.
   A) True
   B) False
9. If an economy is efficient, this means:
   A) all goods are produced at their maximum quantities.
   B) all opportunities to make people better off without making other people worse off have been taken.
   C) more resources have been used to produce specific consumer goods than producer goods.
   D) prices are the lowest they can possibly be.

10. There are only three types of individuals in the world: Joe (a human) and a bunch of cats and mice. Joe likes to hunt cats and only cats, cats like to hunt mice and only mice, and mice like to hunt Joe and only Joe. No one likes being hunted but no one cares if another individual is being hunted. Currently there is no hunting. Which of the following statements is correct?
   A) Allowing hunting by Joe will necessarily increase efficiency
   B) If Joe is not a member of society allowing hunting by the mice will increase efficiency.
   C) Allowing hunting by the cats will necessarily increase efficiency.

11. (April) An economic agent will continue to consume more units of a commodity as long as total benefits are greater than total costs.
   A) Yes
   B) No

   Many people got this question incorrect, answering “yes”. The answer would be yes if the question had said “as long as marginal benefits are greater that marginal costs. If one keeps consuming additional units as long as total benefits are greater than total costs, one would consume up to the point where total benefits equals total costs, and one would get no net benefit for consuming the good—buying the good would have been a waste of time, and a poor use of your money.

12. Recall Edward's in-class discussion of estimating damages to the Couer d'Alene Indian tribe from pollution injuries to the Couer d'Alene River. The injuries occurred quite a while ago and forced the tribe to leave the river basin and 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 SUS. Given all this, one would expect that the tribe's willingness-to-pay, in $, to prevent the injuries would be similar in magnitude to their willingness-to-accept the injuries.
   A) True
   B) False
13. Which of the following allocations are primarily determined by "command and control" rather than by market forces?
   I. how resources and goods are allocated within a household
   II. how resources are allocated between killing terrorists and educating children
   III. who get the BMWs
   IV. how resources are allocated within Google
   V. how much of society's resources are allocated to producing CoCo Puff cereal vs. Captain Crunch
   A) I, II an III
   B) II, III and IV
   C) II and V
   D) I, II, and IV

14. The U.S. economy is a market economy.
   A) True
   B) False
   
   As I have said many times, the U.S. economy is a mixed economy. While we use market to allocate a lot of stuff, a lot of stuff is allocated by non-market mechanisms.

15. The city of Boulder mandates premium chocolate prices be fixed at $2 per bar. At this price, consumers in Boulder demand 4,000 premium chocolate bars while suppliers are willing to supply 6,000 bars. This example illustrates a government intervention causing a shortage.
   A) True
   B) False

16. The production possibility frontier illustrates that:
   A) the economy will automatically end up at full employment.
   B) an economy's productive capacity increases proportionally with its population.
   C) if all resources of an economy are being used efficiently, more of one good can be produced only if less of another good is produced.
   D) economic production possibilities have no limit.
17. 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) There is not enough information to tell.
B) It will increase
C) It will decrease
D) It will remain the same.

18. Consider the demand and supply of Red Bull.

<table>
<thead>
<tr>
<th>Price</th>
<th>Quantity Demanded</th>
<th>Quantity Supplied</th>
</tr>
</thead>
<tbody>
<tr>
<td>$0.50</td>
<td>10</td>
<td>7</td>
</tr>
<tr>
<td>$0.75</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>$1.00</td>
<td>6</td>
<td>9</td>
</tr>
<tr>
<td>$1.25</td>
<td>4</td>
<td>10</td>
</tr>
<tr>
<td>$1.50</td>
<td>2</td>
<td>11</td>
</tr>
</tbody>
</table>

If the government imposes a price floor of $1.25 per can of Red Bull, there will be a
A) A shortage of 6 cans
B) A surplus of 6 cans
C) No surplus or shortage, the price floor will not bind
D) a surplus different from 6 cans.

19. (Eric) My willingness-to-pay for beer is as follows: I am willing to pay $10 for one beer, $18 for two, $24 for three, and $28 for four beers. The cost of a beer is $5, regardless of how many I drink. How many beers should I purchase?
A) 1
B) 2
C) 3
D) 4

I was surprised by the number of people who got this one wrong. Eric’s wtp for the first beer is $10, his wtp for the second one is $8 (18-10), his wtp for the third one is $6 (24-18), his wtp for the fourth one is $4. He pays $5 for each, so marginal benefits are greater than marginal cost for the first three, but not the fourth beer. So, he should buy three beers. Many of you said four.
20. (Figure: Strawberries and Submarines) As the economy moves from point $A$ toward, say, point $D$, it will find that the opportunity cost of each additional submarine:

A) falls.
B) rises.
C) remains unchanged.
D) doubles.

21. (Mariesa) I have 30 minutes between classes in which to get lunch. Which of the following statements is least likely to be correct with respect to my choice set for lunch?

A) I am constrained by the fact that there is only 30 minutes between classes.
B) My choice is constrained by the fact that I don't eat meat before dinner.
C) My choice is constrained by the number of vendors and their locations.
D) My choice is constrained by the fact that I left my wallet at home and the only money I have to spend on lunch is a $10 bill I still had in my pants' pocket.

The most likely answer is B). She eats meat, but not before dinner, so this is most likely a choice (based on her preferences).

She has no control over the other things, making them contraints.
22. (Figure: Slope) In the graph, the slope of the line between points A and B is:
   A) +8.
   B) –8.
   C) –2.
   D) +2.

23. Frances has a linear production possibility frontier when she produces tomatoes and green beans. If she uses all of her resources, she can produce 400 bushels of tomatoes or 800 bushels of green beans. Which of the following combinations is not efficient for Frances?
   A) 400 bushels of tomatoes and zero bushels of green beans
   B) 200 bushels of tomatoes and 400 bushels of green beans
   C) 200 bushels of tomatoes and 800 bushels of green beans
   D) 800 bushels of green beans and zero bushels of tomatoes
24. Katherine has an Economics 2010 exam tomorrow and her plan (choice) was to study as much as possible. However, Elvis P. is playing a free concert this evening and she has been invited (he has come back from the dead). Katherine decides to go to the concert. Which of the following statements must be correct?
A) Katherine's opportunity cost is the time she spends at the concert.
B) Katherine's incurs no opportunity cost because the concert is free.
C) Katherine's opportunity cost is her lost study time.
D) Katherine's opportunity cost is the time she spends at the concert and the time she spends traveling to and from the concert.

25. My demand curve for cigars, per day, is \[ C=9-3P \], where \( P \) is the price of a cigar and \( C \) is the number of cigars I buy and smoke. Assume the current price is $3/cigar. My consumer surplus from having cigars for sale at $3/cigar is
A) $13.50
B) $2
C) $0
D) not enough information to answer the question

26. (Darcy) In Spumoni Colorado, Darcy and Bianca work at the one ice-cream parlor--ACL injuries ended their C.U. soccer careers. They both can make ice cream sundaes or ice-cream cones. Working one hour, Bianca can make 20 sundaes, and working one hour Darcy can make 30 sundaes. Alternatively, in one hour Bianca can make 25 cones whereas Darcy can make 30 cones.
A) Darcy has both a comparative and absolute advantage in making cones.
B) Bianca has a comparative advantage in making sundaes.
C) Darcy has an absolute advantage in making cones and a comparative advantage in making sundaes.
D) Bianca has a comparative advantage in making cones and an absolute advantage in making sundaes.
27. (April) The market for dark chocolate bars has an equilibrium at point E. Dark chocolate is a normal good with an upward-sloping supply curve and a downward-sloping demand curve ($ on the vertical axis). Suppose that researchers determine and publish the result that the consumption of dark chocolate bars decreases one's chance of getting prostate cancer, if one is a male. These finding appear in the New York Times. The following changes will occur in the market for dark chocolate bars
   A) The supply curve will shift out and the new equilibrium will have more chocolate bars at a lower price.
   B) The supply curve will shift in and the new equilibrium will have fewer chocolate bars at a higher price.
   C) The demand curve will shift out and the new equilibrium will have more chocolate bars at a higher price.
   D) The demand curve will shift in and the new equilibrium will have fewer chocolate bars at a lower price.

28. (Sam) Economic situations that are in equilibrium are ______ efficient. (Choose the answer that is both correct and most informative.)
   A) always
   B) never
   C) sometimes
   D) Almost

   “Sometimes.” In lecture and the notes we discussed many examples of equilibrium that are not efficient. For example the equilibrium of the lawyer divorce game.

29. 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 represents his ____
   A) WTA, which must be less than his wealth.
   B) WTA, which could be a million dollars.
   C) WTP, which is bounded from above by his wealth.
   D) WTP, which is **not** bounded by his wealth.
30. Consider the demand and supply curves for low-skilled workers with the wage rate on the vertical axis. Now assume, as in most developed countries (including the U.S.) that the government has imposed a binding "minimum wage." Choose the statement about the effect of the minimum wage that is both correct and most informative.

A) All of the low-skilled will be better off.
B) All of the low-skilled will be better off, but an inefficient amount of the low-skilled will work.
C) From an efficiency perspective, too few of the low skilled will work.
D) From an efficiency perspective, too few of the low-skilled will work, and there will be firms who want to hire the low skilled at the minimum wage but cannot.

For the minimum wage to bind it must be higher than the equilibrium wage, so at a level where supply (number who want to work) is greater than the number the employers want to hire at that wage. That is, there will be an excess supply of low-skilled.

Not all of the low-skilled will be better off: some of them will lose their jobs. The number of low-skilled working will be less than it was in the absence of a minimum wage.

From an efficiency perspective, too few low-skilled are working.

D) is incorrect because there are no firms who want to hire low-skilled at the minimum wage but cannot (the firms are hiring as many as they want to hire at the minimum wage.

31. (Eric) I am at a music festival. The purchase of my festival pass includes unlimited access to all shows at no additional charge. After the main act, I find myself very tired and decide that I would rather go to sleep than see the late-night set. Which of the following statements is correct?

A) The opportunity cost of seeing the late set was zero, since it was already included in the cost of my festival pass.
B) The marginal cost of seeing the late set was zero, since it was already included in the cost of my festival pass.
C) Seeing the late set was not in my choice set.
D) My cost of seeing the late set exceeded my benefit.
32. Assume that when you graduate you will have three options: a high paying stressful job, a life of relaxed poverty, or graduate school in Economics. Your first choice is the stressful job (you are a good American) and your third choice is graduate school. The opportunity cost of taking the stressful job includes
   A) stress and wealth
   B) relaxation and poverty
   C) graduate school
   D) none of the other three answers is correct.

33. (Joelle) Winnie and Eeyore are best friends. They have 3 hours each to collect as much honey as they can, and to find as many missing tails as they can. They decided that they should work together. Winnie can collect 3 jars of honey per hour and can find 8 tails per hour. Eeyore can collect 1.5 jars of honey per hour and find 4 tails per hour. Winnie knows that he is the best so he decided he should devote all of his time to collecting honey and Eeyore should spend all of his time collecting tails. Eeyore is smarter than Winnie and thinks that since Winnie can find the most tails, Winnie should devote all his time to finding tails while he, himself, collects honey.
   Who is right and actually has a comparative advantage in collecting honey?
   A) Winnie
   B) Eeyore
   C) Neither of them

34. Eating chocolate bars causes people to be less violent. That said, people eat chocolate because it tastes good and could care less whether eating chocolate makes them more or less violent. Given this, is the following statement true or false? "This side effect of chocolate means that, all else constant, the equilibrium quantity of chocolate consumed in a world with flexible chocolate prices will be too low from an efficiency point of view, and a more efficient amount of chocolate could be produced if the government subsidized the consumption of chocolate."
   A) True
   B) False
   
   Asked on a previous exam.

35. The economic value to society of saving polar bears from extinction might include the value to polar bears of staying around (not going extinct).
   A) Yes
   B) No
36. I have a debit card with $20 left in the account, and, for some reason, the $20 will disappear from the account by tomorrow morning if it is not spent today. My first choice is to hit the bars tonight and spend the $20 on drinks. My second choice is to stay home, relax and buy nothing. Is the $20 I spend tonight on drinks part of the opportunity cost of my going out?
   A) Yes
   B) No

37. Jorge, the famous Argentinian economist, builds a model/theory to only predict the probability that an individual has a significant other who is a male. He assumes this probability is a function of only hair color and body mass index. The exogenous variable(s) in his model are ____ and the endogenous variable(s) in his model are ____.
   A) body mass index, hair color, and gender | the probability of having a significant male other
   B) the probability of having a significant male other | body mass index and hair color
   C) body mass index and hair color | the probability of having a significant male other
   D) the probability of having a significant male other | body mass index, hair color, and gender

Straight off an old exam. Read the explanation on the old exam. Many of you answered B mixing up exogenous and endogenous.

38. (Allison) Cindy and John both work at McDonalds. In a period of 1 hour, Cindy can make 30 hamburgers or 40 fries. In the same amount of time John can make 25 hamburgers or 30 fries. Given this information, if the person with the comparative advantage in fries were to specialize and make only fries, how many fries will that person make in 2 hour and 15 minutes?
   A) 80
   B) 90
   C) 100
   D) 110

39. In the example in lecture about "damages" to an individual from mining injuries in the Coeur d'Alene basin. Edward said that the U.S. government would use which of the following to measure the damage to an individual from the injury.
   A) The individual's share of the cost of cleaning up the injuries and restoring the basin to it pre-injury state.
   B) The individual's willingness-to-accept the injuries. That is how much she would have to be paid to accept the injuries.
   C) The individual's willingness-to-pay to eliminate the injuries.
   D) Something else.

   The law says wtp.
40. (Sam) A rational consumer will always choose to consume a bundle that is on her budget line.
   A) Yes
   B) No

If you were Bill gates and where only two things you could buy (potatoes and bad cigars) would you spend all your money buying bad cigars and potatoes? No.

You only operate on your budget line (spend all of your money) if there are at least some commodities where more of the commodity is always preferred to less of the commodity.

41. Ceteris Paribus (everything else constant), landlords of apartments that are effectively rent controlled (price ceiling < market price) have more incentive to make repairs and improvements than do landlords of non-rent controlled apartments.
   A) True
   B) False

42. A market for a good requires that the property rights for the good are well defined.
   A) True
   B) False

43. Assume the following: (1), The existence of the Tea Party makes Republicans happy. (2), Happy people smile. (3), Sarah P. is a person. (4) Sarah P. is not a Republican. And (5), The Tea Party exists. Which of the following predictions follow from these assumptions?
   A) Sarah P. is not smiling
   B) Sarah P. is smiling
   C) All Republicans are smiling
   D) All Republicans are smiling, but Sarah P. is not smiling

Straight off an old exam. Since the Tea Party exists Republicans are happy, and happy people smile, so C) is correct. We have no idea whether Sarah is smiling. Maybe she is because she just shot a moose. Of maybe she is not because her shot missed the moose.
44. A nuclear arms race between two countries, both of which have acted aggressively towards the other, (e.g. India and Pakistan, or the USA and the Soviet Union) is conceptually the same game as the game a divorcing couple plays with respect to whether each will hire a divorce lawyer. The payoff table shows what will happen to each country based on whether it chooses to have nuclear weapons and whether the other country chooses to have nuclear weapons. For example, if both arm (have nuclear weapons), both countries are at risk of nuclear annihilation.

<table>
<thead>
<tr>
<th>Decision of Country A</th>
<th>Arm</th>
<th>Disarm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arm</td>
<td>A at risk, and B at risk</td>
<td>A at risk and weak while B safe and powerful</td>
</tr>
<tr>
<td>Disarm</td>
<td>A safe and powerful while B at risk and weak</td>
<td>A safe and B safe</td>
</tr>
</tbody>
</table>

Which of the following describes the equilibrium?
A) Both countries have the bomb (both arm).
B) Country A has the bomb but country B does not.
C) Neither country has the bomb.
D) Country B has the bomb but country A does not.

Use the following to answer question 45:

<table>
<thead>
<tr>
<th>Table: Production of Good Z and Good X in Urbanville</th>
</tr>
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<tbody>
<tr>
<td>Combination</td>
</tr>
<tr>
<td>--------------</td>
</tr>
<tr>
<td>A</td>
</tr>
<tr>
<td>B</td>
</tr>
<tr>
<td>C</td>
</tr>
<tr>
<td>D</td>
</tr>
<tr>
<td>E</td>
</tr>
<tr>
<td>F</td>
</tr>
</tbody>
</table>

45. (Table: Production of Good Z and Good X in Urbanville) If Urbanville is currently producing at Combination F, what is the opportunity cost of a move to Combination E?
A) 5Z
B) 20Z
C) 25X
D) 0X
46. My demand curve for cigars, per day, is \( C = 9 - 3P \), where \( P \) is the price of a cigar and \( C \) is the number of cigars I buy and smoke. Assume the current price is $3/cigar. My total willingness-to-pay for cigars is

A) $13.50
B) $2
C) $0
D) not enough information to answer the question

This question was asked and explained on a previous exam. The answer is $13.50. If the demand curve is \( C = 9 - 3P \), the marginal wtp curve is \( M_{wtp} = 3 - (1/3)C \). If \( P = 0 \), I will consume 9 cigars. So my total wtp of cigars is the area under my Mwtp curve. This is one half of (9 multiplied by 3). Draw a graph with $ on the vertical axis and C on the horizontal axis.

47. Consider the statement, "French people are valuable and should be saved from extinction because Americans, the only individuals that matter, value the existence of French people." This notion of value is consistent with how economists define value.

A) Yes
B) No

48. (Paige) Mr. White gave up his career as a high school chemistry teacher to become a meth producer and seller. (Meth is a illegal stimulant, a street drug.) Mr. White gave up a lot to sell and produce meth. He had to invest in equipment, has to participate in illegal transactions, and has to spend hours "cooking" (producing the meth), etc., etc. Which of the following is not part of the opportunity cost of him becoming a meth producer and seller?

A) A respectable job and what it would have paid.
B) The meth he gives to his assistant Jesse to keep him productive (awake on the job).
C) What the producer could have bought with the money he spent on the equipment she needed to get into the meth business.
49. Millionaire couple Bill and Wanda-Sue Snerdbutt are getting divorced; their childless marriage is irreconcilable and they hate each other. If they both hire lawyers, the lawyers will get 30% of their wealth and the rest will be split between them 50/50. If one hires a lawyer and the other doesn't, the hired lawyer will get 10% of their wealth and the one with the lawyer will get 70% of the wealth. And, if there are no lawyers the split will be 50/50. Which of the following statements is true?
A) Bill's best choice is to hire a lawyer, regardless of what Wanda Sue does.
B) If Wanda Sue says she won't hire a lawyer, it is in Bill's best interest not to hire a lawyer.
C) Neither Bill nor Wanda Sue can benefit from hiring a lawyer.
D) None of the above.

50. 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?
A) 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.
B) 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.
C) Residents of Boulder necessarily get less consumer's surplus from their Aspen ski days than Aspen residents get from their Aspen ski days.

The answer is A. Many of you answered this question implicitly assuming people in Boulder have the same income and preference for skiing as do people in Aspen.

(wrt C) Just because I pay more for something than you do does not mean I get less consumer’s surplus from consuming it. Draw a Mwtp curve for George and Fred for Aspen ski days such that even though George pays way more than Fred to ski Aspen, he still get more consumer’s from skiing Aspen than does Fred.

(wrt D) Boulder residents pay more to ski Aspen but that does not mean they value it more. It only means that they both value it more than it cost them. George, who live in Boulder might pay $100 a day and value the day at $101, whereas Fred, who lives in Aspen, pays $25, but value his last Aspen ski day at $10000 (he is really rich and really likes to ski Aspen).

51. (Sam) If the price of beer decreases
A) The quantity demanded of beer will decrease
B) The quantity demanded of beer will increase
C) The demand curve will shift inward (price on the vertical axis)
D) The demand curve will shift outward (price on the vertical axis)
Answer Key

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