Economics 101
Spring 2009
Professor Wallace

Economics 101 Final Exam

May 14, 2009

Instructions

Do not open the exam until you are instructed to begin. You will need a #2 lead pencil. If you do not have one you will need to borrow one. Before you may begin the exam everyone must take the following steps.
  (1) Use the #2 lead pencil to fill in your name on the answer sheet.
  (2) Fill in your student number on the answer sheet.
  (3) Fill in your TA Code in column A of the space allotted for "Special Codes" on the answer sheet.
      - If your TA is Mai Seki your TA Code is 1
      - If your TA is Caleb White your TA Code is 2.
      - If your TA is Hanqing Wang your TA Code is 3.
      - If your TA is Dai Zusai your TA code is 4.
      - If your TA is Yuya Takahashi your TA code is 5.
  2. Fill in your Exam Code in column B of the space allotted for "Special Codes" on the answer sheet
      - If your exam is green then your Exam Code is 1.
      - If your exam is white then your Exam Code is 2 .

The exam consists of 75 multiple-choice questions. All questions are equally weighted and there is a single best answer for each question. The exam is scheduled to end at 7:05 pm. You are encouraged to hold onto the hard copy of your exam so that you can check your answers. An answer key for this exam will be made available sometime later this evening, but the tests will not be handed back until next week. In keeping with the previously stated policy, we will not accept early email request for exam scores.

1

Figure: Production Possibilities Frontier
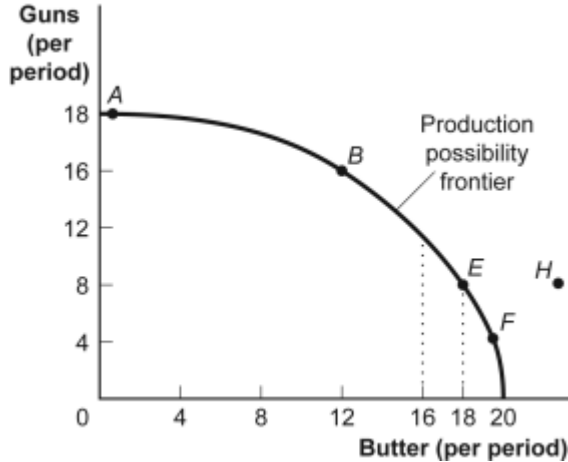
Use the figure about to answer the following questions

1. If the economy represented by the Production Possibilities Frontier were producing 12 units of butter and 16 units of guns
   a. There would be an easy rider problem because it is possible for the country to produce more guns without producing less butter.
   b. The country would not be able to produce more guns without producing less butter.
   c. It is a possible choice, but involves inefficiency.
   d. It is possible, but only with technical change.

2. With trade a country may
   a. produce outside its production possibility frontier
   b. consume outside its production possibility frontier.
   c. solve the "free rider" problem.
   d. avoid all opportunity cost.

3. With a day's worth of labor Simeon can produce 10 baskets or 5 belts and Geoffrey can produce 10 baskets or 20 belts. Which of the following is true?
   a. Geoffrey has a comparative advantage in baskets.
   b. Simeon has a comparative advantage in belts.
   c. Geoffrey has an absolute advantage in both goods.
   d. None of the above.

4. Economist typically make the assumption of increasing opportunity cost because
   a. When more of a good is produced the "easy rider" problem becomes pervasive.
   b. The exports associated with increased production of a good will lead to the price increasing.
   c. Not all resources are equally suited for producing every good.
   d. All of the above
   e. None of the above.

Table: Wheat and Aluminum

	Wheat Production	Aluminum Production
U.S.	100	0
	0	100

	Wheat Production	Aluminum Production
Germany	50	0
	0	100

Use the table above to answer the following question

5. Assuming that both Germany and the U.S. want to consumer some wheat and some aluminum, which of the following are true?
   a. Germany will trade wheat for aluminum
   b. Both countries will specialize in producing one good.
   c. The U.S. will trade wheat for aluminum
   d. None of the above

6. Which of the following best characterize the source of gains from trade
   a. Specialization
   b. Comparative advantage
   c. Differing opportunity cost
   d. All of the above.

7. The law of demand states that, holding everything else constant
   a. There a positive relationship between price and quantity demanded
   b. There is a positive relationship quantity demanded and income
   c. There is a negative relationship between price and quantity demanded.
   d. There is a negative relationship between quantity demanded and income.

8. If goods A and B are substitutes, then an increase in the price of B will cause:
   a. Demand for A to increase.
   b. The quantity demanded of A to increase.
   c. Demand for A to decrease.
   d. The quantity demanded of B to increase.

9. A good can be described as normal if
    a. It doesn't stand out in any way that is exceptional
    b. It has a normal downward sloping demand curve
    c. It responds normally to price increases.
    d. Increases in income lead to increases in demand for the good.
    e. Decreases in income lead to increases in demand for the good.

10. In order for a good to have an upward sloping demand curve
    a. the good would have to be inferior and the income effect would have to be larger in magnitude than the substitution effect.
    b. the good would have to be normal and the income effect would have to be larger than in magnitude the substitution effect.
    c. the good would have to be inferior and the income effect would have to be smaller in magnitude than the substitution effect.
    d. the good would have to be normal and the income effect would have to be smaller magnitude than the substitution effect.
    e. None of the above.

11. If the quantity demanded in a competitive market exceeds the quantity supplied we would expect prices to:
    a. increase
    b. decrease
    c. stay the same
    d. It is impossible to know without information on the relative income and substitution effects.
   e. None of the above.

Figure: The Market High Fructose Corn Syrup.
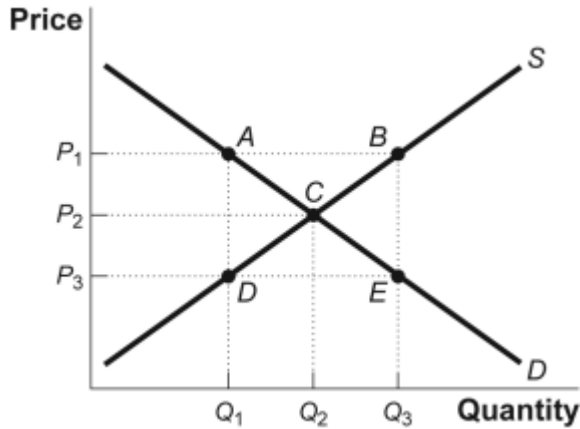
Use the figure above for the next 3 questions.

12. Assuming Iowa and Nebraska experience bad summer floods. In response, what would the most likely equilibrium point in the market for high fructose corn syrup?
    a. A
    b. B
    c. D
    d. E
    e. Not enough information to determine.

13. Assume that the price of sugar increased. In response, what would be the most likely equilibrium point in the market for high fructose corn syrup?
    a. A
    b. B
    c. D
    d. E.
    e. Not enough information to determine.

14. Assume that consumer incomes are on the rise. In response, what would be the most likely equilibrium point in the market for high fructose corn syrup?
    a. A
    b. B
    c. D
    d. E
    e. Not enough information to determine

Figure: Market for Oyster Shell.
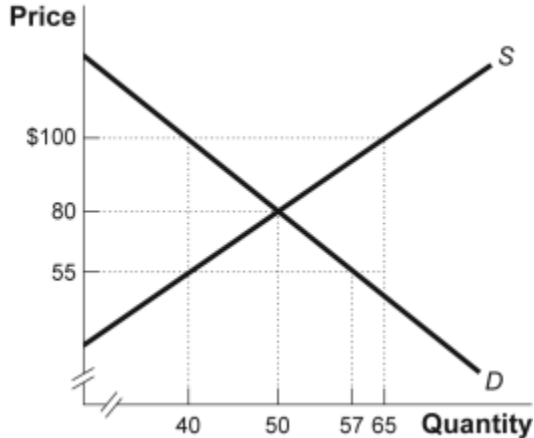
Use the above figure to answer the following question.

15. If a price ceiling of 100 existed in the market for oyster shells, the market outcome would be
    a. A price of 100 and a quantity of 40
    b. A price of 100 and a quantity of 65.
    c. A price of 80 and a quantity of 50
    d. A price of 55 and a quantity of 40

16. If the price elasticity of demand for sod is 1.5, then which statement is most accurate
    a. A 10 percent increase in sod will correspond to a 15 percent increase in price.
    b. A 1 percent increase in sod will correspond to a 1.5 percent increase in the quantity of sod demanded
    c. An increase in the price of sod by $1 will correspond to a decrease in the quantity of sod demanded by 1.5 units.
    d. A 10 percent increase in the price of sod will correspond to a 15 percent decrease in the quantity of sod demanded.

17. If the cross price elasticity of good X with respect to good Y is 0.5, then
    a. The goods are both normal
    b. The goods are both inferior.
    c. The goods are compliments
    d. The goods are substitutes.

18. When the price of a good increases from 10 to 14 the quantity demanded decreases from 8 to 4. Using the mid-point (arc elasticity) formulation, what is the price elasticity of demand
    a. 2
    b. 1/2
    c. 3
    d. 1/3

**Figure and Table: Indifference Curve Map**
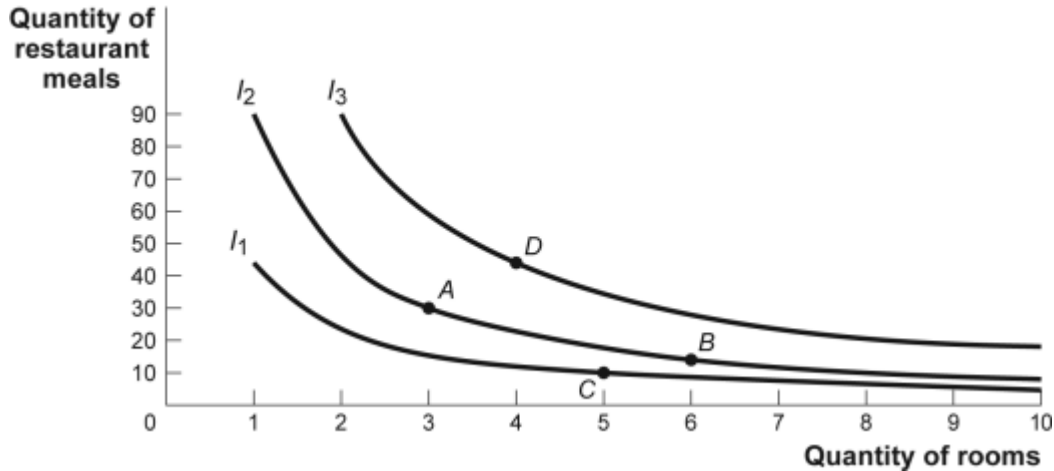
Consumption Bundle	Quantity of Rooms	Quantity of Meals	Total Utility (utils)
A	3	30	450
B	6	15	450
C	5	10	391
D	4	45	519

Use the above table and figure to answer the following question

19. Which of the following statements is true
    a. Point A is preferred to point C
    b. Point B is preferred to point C
    c. Point D is preferred to point A
    d. All of the above
   e. None of the above.

20. Which of the following statements is correct?
   a. The slope of an indifference curve shows the rate at which two goods can be exchanged without changing a consumer's total utility.
   b. The slope of an indifference curve shows the rate at which two goods can be exchanged without changing a consumer's budget.
   c. The slop of a utility curve shows what the rate at which two goods can be exchanged without changing a consumer's utility.
   d. The slop of a utility curve shows what the rate at which two goods can be exchanged without changing a consumer's utility

21. Which of the following would result in a unit tax on producer having an incidence of 1 on consumers?
   a. Perfectly elastic demand
   b. Perfectly inelastic demand
   c. An income effect that exceeded the substitution effect
   d. Perfectly inelastic supply.

22. If the incidence of a unit tax on consumers is zero
   a. Consumers pay for all of the tax in the form of higher prices
   b. Producers pay for all of the tax in the form of higher prices
   c. Producers pay for all of the tax in the form of lower prices
   d. There will be no change in the equilibrium quantity.

23. Which of the following provides the best explanation of why indifference curves are bowed toward the origin?
   a. When a consumer has a lot of the y-good and not very much of the x-good his marginal utility of the y-good is low and his marginal utility of the x-good is high
   b. When a consumer has a lot of the y-good and not very much of the x-good his marginal utility of the y-good is high and his marginal utility of the x-good is low
   c. Income effects are high when the quantity of a good is low
   d. Income effects are low when the quantity of a good is high.

24. All Geoffrey cares about is caffeine. Because a coffee has double the caffeine of a tea, Geoffrey can substitute 2 teas for 1 coffee while holding his utility constant regardless of how much tea or coffee he is consuming (i.e. his marginal rate of substitution of tea for coffee is always 2). Geoffrey has $12 to spend. Assuming the price of tea is $1 and the price coffee is $1.50, which consumption bundle will Geoffrey choose?
   a. 12 teas and 8 coffees
   b. 12 teas and 0 coffees
   c. 8 coffees and 6 teas.
   d. 8 coffees and 0 teas.
   e. None of the above
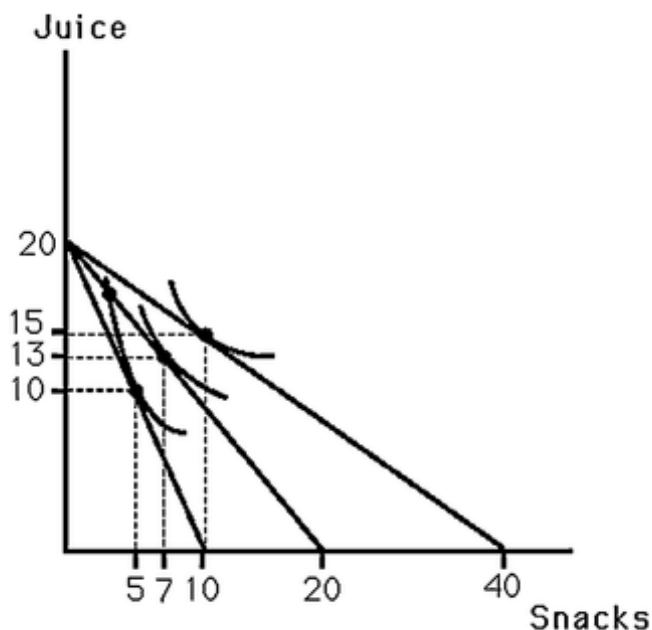
Juice

Snacks

25. The above figure shows Mia's indifference map for juice and snacks. Also shown are three budget lines resulting from different prices for snacks assuming he has $40 to spend on these goods. Which of the following points are on Mia's demand curve for snacks?
   a. p = 2, q= 8
   b. p = 5, q = 10
   c. p = 1, q = 20
   d. p = 4, q =5

26. Suppose Jeremy spends all of his income on beer and popcorn. Also suppose that beer and popcorn are normal goods. Which of the following statements are most accurate when the price of beer goes up?
   a. The substitution effect on beer is positive and the income effect on beer is negative.
   b. Both the substitution effect and the income effect on beer are positive.
   c. The substitution effect on beer is positive, but the income effect is indeterminate
   d. Both the substation effect and the income effect on beer and negative.

27. If a person supplies more of labor in response to a wage increase, then
   a. the substitution effect is greater than the income effect.
   b. the income effect is greater than the substitution effect.
   c. the income effect equals the substitution effect.
   d. the person is not maximizing utility.

28. A production function is a function that describes
    a. how the level of inputs relates to the amount of output produced when a firm is producing efficiently.
    b. the level of inputs that relates to the amount of profits that can be earned in a perfectly competitive industry when a firm is producing efficiently.
    c. the rate at which one input can be substituted for another holding profits constant.
    d. the rate at which one input can be substituted for another holding output constant.

29. Production is said to be efficient if
    a. more output can be produced with the same amount of inputs
    b. more output can only be produced by utilizing more of at least one input
    c. more output can be produced only if there are increasing returns to scale.
    d. the maximum efficient scale is reached.

30. The long-run is defined as a period long enough that
    a. all inputs into the production process can be varied.
    b. all inputs into the production process are fixed
    c. at least one input into the production process is fixed.
    d. efficiency can be achieved.

31. Returns to scale refers to the change in output when
    a. labor increases holding all other inputs fixed.
    b. capital equipment is doubled.
    c. all inputs increase proportionately
    d. specialization improves.

32. Firms that exhibit price-taking behavior
    a. wait for other firms to set price, take it as given, and charge a higher price.
    b. have outputs that are too small to influence market price and thus take it as given.
    c. take pricing behavior in their own hands.
    d. are independently capable of setting price.

33. Economists proclaim that competitive firms make zero economic profit in the long-run. This shows how
    a. firms cover only accounting cost when economic profits are zero.
    b. unrealistic economic theory is.
    c. firms cover all their cost, both accounting and economic.
    d. detached economists are from the real world.

34. Fixed cost are
    a. the amount by which a firm's cost changes if the firm produces one more unit of output.
    b. equal to total cost divided by the units of output produced.
    c. a production expense that does not vary with output.
    d. a production expense that changes with the quantity of output produced.

35. Which of the following statements best explains why long-run average cost is never greater than short-run average cost?
    a. In the long-run, the cost of capital declines because the firm is able to pay down some of its debts.
    b. In the long-run, diseconomies of scale might not occur, but in the short-run diminishing marginal returns do.
    c. In the long-run, the average cost curve need not be U-shaped, but in the short-run it is.
    d. In the long-run, tangency of the isocost and isoquant is attainable. This is not necessarily true in the short-run
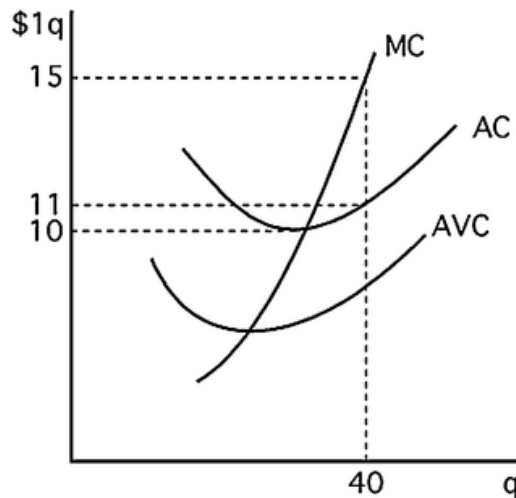
36. The above figure shows the cost curves for a competitive firm. If the firm is to earn economic profit, price must exceed
    a. 15
    b. 11
    c. 10
    d. The firm will always earn economic profits as AC exceeds AVC.

37. The competitive firm's short-run supply curve is equal to
    a. the portion of its marginal cost curve that lies above AFC.
    b. the portion of its marginal cost curve that lies above AC.
    c. the portion of its marginal cost curve that lies above AVC.
    d. Its marginal cost curve

38. Markets with free entry and exit experience
    a. a very steady number of firms.
    b. barriers to entry.
    c. firms entering whenever they can make a profit and exiting when they cannot make a profit.
    d. steady long-run economic profit.
    e. None of the above

39. For a firm operating in a perfectly competitive environment
    a. Marginal revenue exceeds marginal cost in the short-run because firms make a profit
    b. Marginal revenue equals price because firms are price takers
    c. Marginal revenue exceeds price because firms are free to enter
    d. Marginal revenue equals price because firms face a downward sloping demand curve for their goods.

40. If a monopolist faces an inverse demand curve $P = 100 - 4 \cdot Q$, its marginal revenue curve is given by
    a. $MR = 100 - 4 \cdot Q$
    b. $MR = 200 - 4 \cdot Q$
    c. $MR = 200 - 8 \cdot Q$
    d. $MR = 100 - 8 \cdot Q$
    e. None of the above

41. For a monopolist marginal revenue is less than the price because
    a. the price must be reduced to sell more output.
    b. they act as a price taker
    c. they face a perfectly inelastic demand curve
    d. they face a perfectly elastic demand curve.

42. The situation in which one firm can produce the total output of the market at lower cost than several firms is called.
    a. ruling monopoly.
    b. natural monopoly.
    c. cost monopoly.
    d. pure monopoly.

43. Efficient regulation in the context of a monopoly sets price equal to
    a. marginal cost.
    b. minimum average cost.
    c. average cost.
    d. average variable cost.

44. An alternative to efficient regulation in the context of monopoly is to force the monopolist to set a price equal to
    a. marginal cost.
    b. marginal revenue.
    c. average cost.
    d. None of the above.

45. A perfect price discriminator
    a. generates a deadweight loss to society.
    b. charges different prices to each customer based upon different costs of delivery.
    c. charges each buyer according to his maximum willingness to pay
    d. charges lower prices to customers who buy greater quantities.

46. Perfect competition and monopolistic competition are similar in that both market structures include
    a. very few firms.
    b. a homogeneous product.
    c. no barriers to entry.
    d. price-taking behavior by firms.

47. A competitive market structure differs from the monopoly, oligopoly, and monopolistic competition structures in the
    a. entry conditions.
    b. amount of long-run profit.
    c. profit maximization condition.
    d. producers' ability to set price.

48. Oligopoly differs from monopolistic competition in that an oligopoly includes
    a. product differentiation.
    b. barriers to entry.
    c. no barriers to entry.
    d. downward-sloping demand curves facing the firm.

49. Monopolistic competition and monopoly have all of the following in common EXCEPT
    a. $P > MC$.
    b. Firms are price setters.
    c. Barriers to entry.
    d. $MR = MC$.

50. Which of the following would make it easier for firms in a cartel to coordinate on prices?
    a. So called "most favored nation" or "most favored customer" clauses in which customers are refunded money if the retailer drops the price of the good they purchased or sells it to another customer at a lower price.
    b. "Low price adds" in which a retailer is willing to beat the price of their competitors.
    c. The presence of trade publications
    d. All of the above
    e. None of the above.

Payoff Matrix

51. The above figure shows a payoff matrix for two firms, A and B, that must choose between a high-price strategy and a low-price strategy. For firm B
    a. there is no dominant strategy.
    b. doing the opposite of firm A is always the best strategy.
    c. setting a high price is the dominant strategy.
    d. setting a low price is the dominant strategy.

52. The above figure shows a payoff matrix for two firms, A and B, that must choose between a high-price strategy and a low-price strategy. The Nash equilibrium in this game
    a. does not exist.
    b. occurs when both firms set a high price.
    c. occurs when firm A sets a high price and firm B sets a low price.
    d. occurs when both firms set a low price.

53. In 2007 the US poverty rate was
    a. less than 5 percent
    b. less than 10 percent
    c. between 10 and 15 percent
    d. between 15 and 20 percent

54. To determine whether a family is poor in the US
    a. their post-tax income is compared to a poverty threshold for their family composition and size
    b. their post-tax income net work expenses is compared to a poverty threshold for their family composition and size.
    c. their pre-tax income is compared to a poverty threshold for their family composition and size
    d. their pre-tax income net work expenses is compared to a poverty threshold for their family composition and size.

55. The Earned Income Tax Credit (EITC) is best described as
    a. a program that supplies cash assistance to able bodied people that aren't working and are not eligible for unemployment benefits
    b. a wage subsidy that operates through the income tax system
    c. a program that provides cash benefits to blind and disabled.
    d. a tax credit available to employers for hiring the heads of poor families.

56. Relative to comparable countries the US
    a. allocates a smaller share of Gross Domestic Product (GDP) to social assistance
    b. allocates a larger share of Gross Domestic Product (GDP) to social assistance
    c. allocates a similar share of Gross Domestic Product (GDP) to social assistance
    d. has a similar distribution of income.

57. Which of the following statement is most accurate?
    a. The poverty rate among elders has decreased substantially in the last 40-years
    b. The poverty rate among children has decreased substantially in the last 40-years.
    c. The overall poverty rate has decreased substantially in the last 40-years.
    d. All of the above are accurate

58. Assume that college has no influence on worker productivity and that employers don't have an effective mechanism for screening worker ability-productivity. Which of the following make it more likely that high ability (high productivity) people would go to college?
    a. High ability people make up a high percentage of the population
    b. High ability people make up a low percentage of the population.
    c. Large difference in productivity between high ability and low ability workers
    d. Both a. and c.
    e. Both b. and c.

59. Which of the following constitute costs of attending college?
    a. Forgone wages
    b. Tuition and fees
    c. The wage differential between college graduates and high school grades
    d. Both A and B.
    e. Both B and C.

60. Public goods are
    a. excludable and non-rival in consumption
    b. both non-rival in consumption and non-excludable
    c. rival in consumption, but excludable
    d. associated with the "easy rider" problem

61. Which situation best describes moral hazard:
    a. You are more likely to behave immorally if you aren't likely to get caught.
    b. You are more likely to buy insurance if you know you are likely to need it
    c. If you know you are insured, you are more likely to take risks
    d. If you engage in risky behavior you'll have to pay higher prices for insurance.

62. A progressive tax is best defined as a tax where
    a. high-income people pay more money in taxes than low-income people
    b. high income people pay a higher average tax rate than low-income people
    c. high income people pay a lower average tax rate than low-income people
    d. high income people pay less money in taxes than low income people

63. Which of the following statements is most accurate?
    a. Federal income taxes are regressive, but federal payroll taxes are progressive
    b. Federal income taxes are regressive, but state income taxes are progressive.
    c. Federal income taxes are progressive, but federal payroll taxes are regressive.
    d. Federal income taxes are progressive and federal payroll taxes are progressive.

64. Which of the following are commonly cited as examples of a regressive tax?
    a. Property taxes
    b. Sales taxes
    c. Federal income taxes
    d. The flat tax

65. Relative to emissions standards, emissions fees
    a. reduce emissions at a lower total cost.
    b. reduce emissions at the same total cost.
    c. reduce emissions at a higher total cost
    d. reduce emissions by less.

66. Tradable permits have all the advantages of emissions fees and
    a. are associated with a lower total cost.
    b. have their price determined by a market mechanism
    c. are associated with a higher total cost
    d. None of the above.

67. In the presence of a negative externality a competitive market provides
    a. the socially optimal level of output
    b. less than the socially optimum level of output
    c. more than the socially optimal level
    d. None of the above.

68. A cartel will be easier to maintain if
    a. The firms interact in the market for a known and limited period of time
    b. The firms interact in a market for a indefinite period of time
    c. The firms place a high value on future profits (i.e., they don't discount heavily).
    d. Both a. and b.
    e. Both b. and c.

69. Which of the following goods is NOT an example of a nonrival good?
    a. Television shows
    b. A public dam that prevents flooding
    c. National defense
    d. None of the above

70. A "free rider" is best described as someone
    a. a special amendment on a piece of legislation.
    b. consumes a good without paying for it.
    c. produces a negative externality
    d. Note of the above

71. Assume Geoffrey is risk-adverse, has zero wealth, and faces two gambles:
   - A With probability 0.3 he gets 0, with probability 0.7, he gets $100
   - With probability 0.5 he gets $60, with probability 0.5, he gets $80

   Which gamble does Geoffrey prefer?
   - a. A
   - b. B
   - c. He is indifferent between these two gambles
   - d. It cannot be determined

Use the following information for the next 3 questions: The function describing the utility that Darlene gets from wealth is $U(w) = \sqrt{w}$. Darlene lives in an area where there is a 20% chance of a flood. If she experiences flood her wealth drops from 25 to 0.

72. What is Darlene's expected utility?
   - a. 20
   - b. 5
   - c. 4

73. What is Darlene's expected wealth?
   - a. 20
   - b. 5
   - c. 4
   - d. 16

74. What is Darlene's certainty equivalent?
   - a. 20
   - b. 18
   - c. 12
   - d. None of the above

75. Don would like to sell his existing computer to upgrade to a more powerful one by advertising on the bulletin board in the student center. He decides against it because the used computers listed on the board are underpriced. This is a situation involving
   - a. moral hazard
   - b. adverse selection
   - c. screening
   - d. signaling