

Name: \_\_\_\_\_ Date: \_\_\_\_\_  
Microeconomics 2010 final, sec. 300.  
Fall 2009 (Version 2)

The exam has 123 questions. Make sure you have all 123 questions (29 pages)

1. From the individual's perspective maximizing their utility and behaving efficiently are one and the same.
  - A) True
  - B) False
  
2. A curve that represents combinations of two goods that yield equal levels of satisfaction is a(n):
  - A) indifference curve.
  - B) budget curve.
  - C) marginal utility curve.
  - D) price-consumption curve.
  
3. The short-run supply curve for a perfectly competitive firm is its:
  - A) marginal revenue curve to the right of its marginal cost curve.
  - B) demand curve above its marginal revenue curve.
  - C) average total cost curve below its marginal cost curve.
  - D) marginal cost curve above its average variable cost curve.
  
4. Consumer surplus for an individual buyer is equal to:
  - A) the price of the good, minus the marginal cost of producing the good.
  - B) the consumer's willingness to pay for the good, minus the marginal cost of producing the good.
  - C) the marginal cost of the good, minus the consumer's willingness to pay for the good.
  - D) the consumer's willingness to pay for the good, minus the price of the good.
  
5. Consider the market for pigs and assume there is a marginal external cost associated with raising pigs. Without government regulation, at the market equilibrium price and quantity of pigs:
  - A) the price will be less than the marginal social cost.
  - B) too few pigs will be raised.
  - C) the price will be less than the marginal cost to pig farmers.
  - D) the price will be less than the marginal benefit.

6. Consider two firms: Suppose that firm A pollutes, this negatively affects firm B, and the amount firm A pollutes is un-taxed and unregulated. Which of the following statements is definitely NOT true?
- A) The marginal cost of firm A is affected by how much firm B produces
  - B) The equilibrium quantity of output for firm A is not the efficient quantity from society's perspective
  - C) The marginal cost of firm B is unaffected by the pollution from firm A
  - D) The supply curve for firm B does not reflect social marginal costs
7. In long-run equilibrium, economic profits in a perfectly competitive industry are:
- A) zero.
  - B) positive.
  - C) indeterminate.
  - D) negative.
8. If a good that involves external costs is then priced to take these costs into account, then its price would:
- A) rise and output would likely fall.
  - B) fall and output would go up.
  - C) rise but output would stay the same.
  - D) not change but output would fall.
9. If government officials set an emissions tax too high:
- A) the marginal social cost of pollution will exceed the marginal social benefit of pollution.
  - B) pollution will be unabated.
  - C) there will be too little pollution.
  - D) there will be too much pollution.
10. Austin's total fixed cost is \$3,600. Austin employs 20 workers and pays each worker \$60. The average product of labor is 30, and the marginal product of the twentieth worker is 12. What is the marginal cost of the last unit produced by the last worker Austin hired?
- A) \$5
  - B) \$0.20
  - C) \$720
  - D) \$240

11. George is make candy bars; production requires two inputs: chocolate,  $c$ , and sugar,  $s$ . The constant  $MRTS_{cs} = 3/4$ . George will likely use both chocolate and sugar to produce his candy bars
- A) True
  - B) False
12. Average total cost is:
- A) the change in output divided by the change in costs.
  - B) total cost divided by output.
  - C) total cost times output.
  - D) the change in cost divided by the change in output.
13. An external benefit is a(n):
- A) benefit that accrues to foreign (external) firms due to the actions of domestic firms.
  - B) benefit that accrues to domestic firms due to the actions of foreign (external) firms.
  - C) benefit that individuals or firms confer on others without receiving compensation.
  - D) example of a negative externality.
14. Total revenue is a firm's:
- A) ratio of revenue to quantity.
  - B) total output times the price at which it sells that output.
  - C) difference between revenue and cost.
  - D) change in revenue resulting from a unit change in output.
15. Making the allocation of society's resources less efficient can increase the welfare of society.
- A) True
  - B) False
16. The presence of an external negative effect implies the market is failing.
- A) True
  - B) False
17. Apple likely produces an efficient number of iPods from society's perspective
- A) True
  - B) False

18. Which of the following is both correct and most explanatory as an ending for the sentence? The cost of producing another unit of a public good ....
- A) is typically positive and not equal to the cost of supplying it to another individual
  - B) is zero because once it is produced for one individual it is there for everyone.
  - C) is typically positive even though the cost of supplying it to another individual is zero
  - D) is equal to the cost of supplying it to another individual
19. Ignoring the cost of producing another unit of a public commodity, everyone in society necessarily benefits when the supply of a public commodity increases by one unit
- A) True
  - B) False
20. A plastics manufacturing plant emits pollution into the Big River. This leads to higher costs and disruption for fisherman on the lake, for which they are not compensated. In this situation, we can assume that:
- A) too few of society's resources are being used to produce plastic.
  - B) too many of society's resources are being used to produce plastic.
  - C) the ideal amount of society's resources is being used to produce plastic.
  - D) there is an external benefit to society from plastic production.
21. Basic consumer theory would say that people do bad things because it increases their utility
- A) True
  - B) False
22. Assuming goods are normal goods and pollution reduction is a superior good, is the following statement correct? " Everything else constant, efficiency dictates that pollution-intensive industries be located in poor, rather than rich, communities.
- A) True
  - B) False
23. A recent study found that by the age of 20 years, in the U.S.,
- A) 60% have, at least briefly, been the recipient of food stamps
  - B) 20% have, at least briefly, been the recipient of food stamps
  - C) 40% have, at least briefly, been the recipient of food stamps
  - D) 50% have, at least briefly, been the recipient of food stamps
  - E) 30% have, at least briefly, been the recipient of food stamps

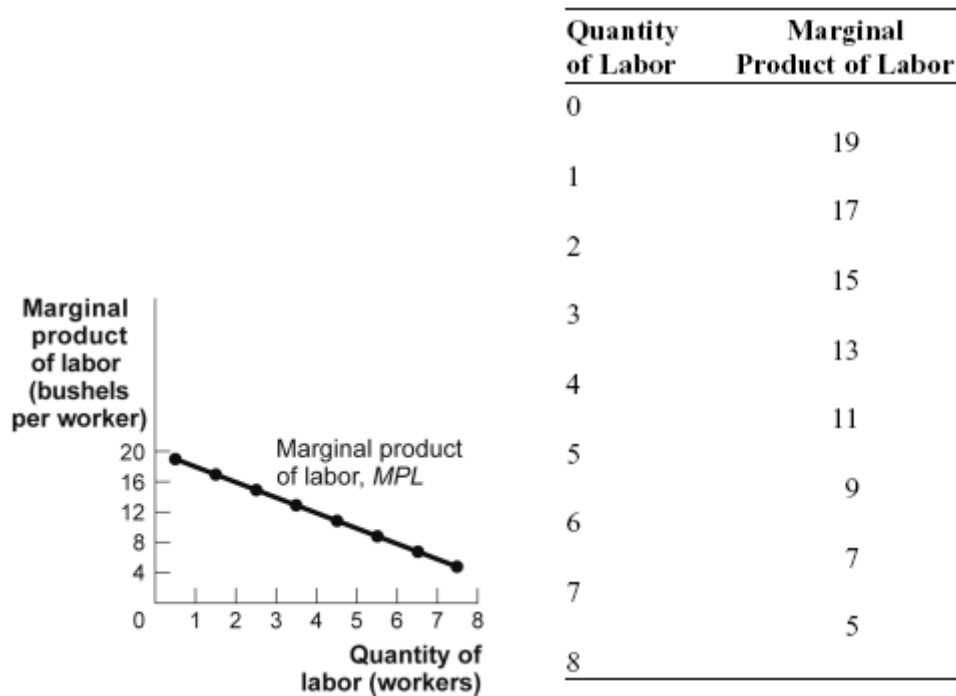
24. Choose the statement that is correct
- A) for an individual an indifference curve further from the origin is always preferred to an indifference curve closer to the origin.
  - B) the income elasticity of weight is the percentage change in income divided by the percentage change in weight
  - C) indifference curves and isoquants are contour lines
  - D) the slope of an isoquant curve is called the marginal rate of substitution
25. The own price elasticity of demand will be larger, in absolute terms, when
- A) the good is a luxury good rather than a necessity.
  - B) all of the other answers
  - C) the time period to adjust is short
  - D) there are few good substitutes for the good
26. For a competitive market economy to achieve an efficient allocation of resources, property rights must be well defined.
- A) True
  - B) False
27. Consider two types of welfare payments to the poor: \$300 in food stamps or \$300 in cash. An economist would argue that the recipient would never prefer the food stamps.
- A) True
  - B) False
28. Wanda, age 32, wants to find a male to date. No one turns Wanda down for a date. She likes intelligent and she likes young. Assume intelligence in all males is 100 at age 15 and then increases 2 points a year, forever. Wanda faces a tradeoff. Further assume that the dictates of society, which Wanda will not violate, is that females cannot date someone who is less than half their age plus seven. Which statement about Wanda is both correct and most informative?
- A) Wanda will date a 23 year-old because young is good and, 23 is as young as she is allowed to go.
  - B) We know nothing about who Wanda will date, but she must be attractive
  - C) Wanda might date a geezer, someone elderly.
  - D) Wanda is more likely to date a 40 year-old than a 25 year-old because they are more intelligent.
29. Excess market power typically causes the market system to fail
- A) True
  - B) False

30. If an individual's consumption of a good directly affects others, the individual will always consume too much of the good for a social efficiency perspective.
- A) True
  - B) False
31. Suppose at the current amount of pollution, the marginal social benefit of pollution is greater than the marginal social cost of pollution, then:
- A) there is too little pollution from an efficiency perspective.
  - B) society is achieving the optimal amount of pollution.
  - C) the externality is minimized.
  - D) there is too much pollution from an efficiency perspective
32. When diminishing returns exist, then the marginal cost curve is upward-sloping.
- A) True
  - B) False
33. I-70 is a public good
- A) True
  - B) False
34. Externalities and external effects are the same thing.
- A) True
  - B) False
35. The fact that children starve in market economies proves that the market can fail
- A) True
  - B) False
36. Buford Bus Manufacturing installs a new assembly line. As a result, the output produced per worker increases. The marginal cost of output at Buford:
- A) will decrease (the *MC* curve will shift right).
  - B) will be unchanged.
  - C) will increase (the *MC* curve will shift left).
  - D) is at its maximum.

37. Suppose a pharmaceutical firm invests in research and development and creates new drugs. These creations cause the firm to earn great profits. These new drugs decrease the cost to this firm, and other firms of creating additional drugs - knowledge is increased industry wide. The government paying the initial firm to create drugs could increase efficiency.
- A) True
  - B) False
38. A necessary condition for successful Coasian bargaining is property rights are well defined for the scarce resources in question.
- A) True
  - B) False
39. Marginal social cost of an action is the cost of the action that the producer of the action does not pay
- A) True
  - B) False
40. The textile industry is composed of a large number of small firms that produce products that are very similar. In recent years these firms have suffered economic losses - demand for their products have decreased - and many of them have gone out of business. Economic theory suggests that the firms that remain in the industry will earn a normal rate of return.
- A) True
  - B) False
41. Currently, in the U.S. food stamps help to feed
- A) one in ten children
  - B) one in four children
  - C) one in twenty children

Use the following to answer question 42:

**Figure: Marginal Product of Labor**

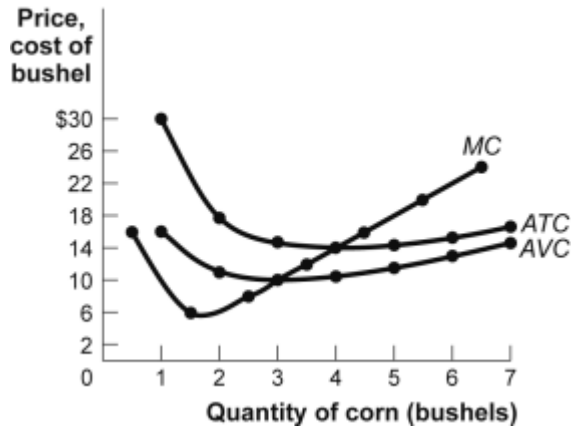


42. (Figure: Marginal Product of Labor) Using the marginal product of labor curve in the figure, the total product of labor for three workers is:
- A) 39 bushels.
  - B) 45 bushels.
  - C) 15 bushels.
  - D) 51 bushels.



Use the following to answer question 43:

**Figure: Cost Curve and Profits**



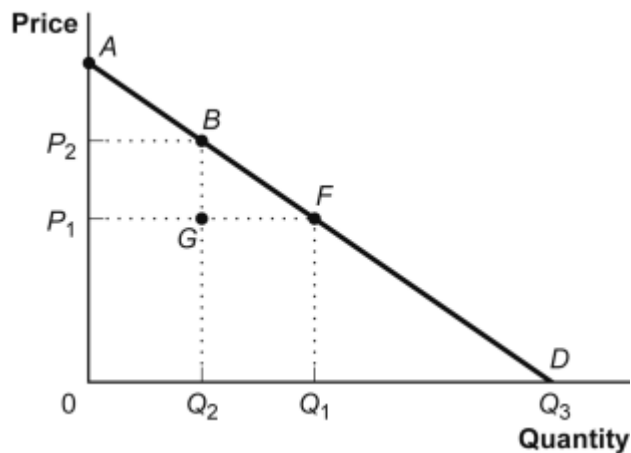
43. (Figure: Cost Curves and Profits) The market for corn is perfectly competitive, and an individual corn farmer faces the cost curves shown in the figure. If the price of a bushel of corn in the market is \$14, then the farmer will produce \_\_\_\_\_ of corn and earn an economic \_\_\_\_\_ equal to \_\_\_\_\_.
- A) 4 bushels; profit; just less than \$80 per bushel
  - B) 4 bushels; profit; \$0
  - C) 2 bushels; loss; just more than \$80 per bushel
  - D) 2 bushels; profit; \$0
44. In a *manna from heaven model*
- A) production is efficient
  - B) the issue is consumption
  - C) consumption and production are both efficient
  - D) the market is not used to allocate
45. According to many economists, the government should:
- A) achieve the least-cost way of reducing the level of emissions.
  - B) reduce emissions whenever the marginal cost exceeds a predetermined level set by the courts.
  - C) achieve the efficient level of pollution by reducing the costs of pollution, which will always increase the benefits to society.
  - D) reduce the level of emissions as far as possible.

46. The proposition that if bargaining is costless, then the market can achieve an efficient outcome, is referred to as the:
- A) efficient environment paradigm.
  - B) property rights paradigm.
  - C) Coase theorem.
  - D) market rights theorem.
47. Assume that people like to shoot bears - its fun and the meat is tasty. This assumption implies that shooting bears is efficiency increasing.
- A) True
  - B) False
48. Increasing the state of knowledge is efficiency increasing
- A) True
  - B) False
49. The benefit to society of an additional unit of a public good is the net benefits to all members of society from that additional unit.
- A) True
  - B) False
50. Basic consumer theory, as we learned in class, assumes that individual ranks goods not bundles.
- A) True
  - B) False
51. Which situation would most likely cause a decrease in consumer surplus in the toy market?
- A) Consumer income increases.
  - B) A new assembly line design increases worker productivity.
  - C) There is an unexpected baby boom.
  - D) The cost of shipping increases due to higher oil prices.

52. Which statement best describes how the competitive firm chooses the input combination it will use to produce, in the long run, its chosen level of output.
- A) It is determined by its chosen level of output
  - B) It is determined by the isoquant map
  - C) It is determined by the input prices
  - D) It is determined by the state of technical knowledge for producing its output and the constraints imposed on the firm by the market.
53. If the price of tacos increases from \$1 to \$2, and customers decrease their consumption from 10 tacos to 8 tacos, what is the price elasticity of demand, using the midpoint method?
- A)  $3/2$
  - B)  $1/3$
  - C)  $1/2$
  - D) 1

Use the following to answer question 54:

**Figure: Consumer Surplus II**



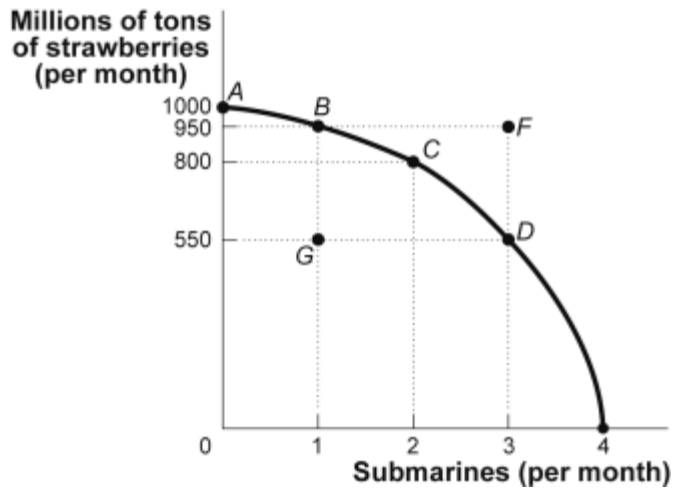
54. (Figure: Consumer Surplus II) At a price of  $P_2$ , consumer surplus equals the area:
- A)  $ABP_2$ .
  - B)  $AFP_1$ .
  - C)  $AQ_30$ .
  - D)  $P_1P_2BF$ .

55. In Colorado, there has been a drought, and rural communities are fighting with urban areas over water. This statement best represents the economic concept of:
- A) resources are scarce.
  - B) resources should be used as efficiently as possible to achieve society's goals.
  - C) when markets don't achieve efficiency, government intervention can improve society's welfare.
  - D) government policies can change spending.
56. Production is efficient when
- A) The only way to make one member of society better off requires that another member be made worse off.
  - B) The only way to increase the production of a good requires that the production of some other good or goods be decreased.
57. A Pigouvian subsidy is:
- A) appropriate when the marginal social cost curve is above the marginal cost of production curve.
  - B) designed to discourage activities generating externalities.
  - C) designed to encourage activities generating external benefits.
  - D) appropriate when the marginal social cost curve and the marginal social benefit curve intersect at an inefficient level.
58. An economy is said to have a comparative advantage in the production of a good if it can produce that good:
- A) with more resources than another economy.
  - B) outside its production possibilities curve.
  - C) at a lower opportunity cost than another economy.
  - D) with a higher opportunity cost than another economy.
59. If China grows, increasing the world demand for oil will increase the price we pay for gasoline, this is an example of a negative externality.
- A) True
  - B) False
60. The assumptions of perfect competition imply that:
- A) individuals in the market accept the market price as given.
  - B) individuals can influence the market price.
  - C) the price will be a fair price.
  - D) the price will be low.

61. Edward and Unjung live in the jungle. They train a monkey, George, to do two things: patrol the perimeter of their camp and to gather fruit. Which of the following are public goods.
- A) the fruit
  - B) both the fruit and the patrols
  - C) the patrols
  - D) none of the above
62. The difference between total revenue and total cost is:
- A) economic profit.
  - B) nominal revenue.
  - C) average revenue.
  - D) marginal revenue.
63. Market failures are things that are inherent to the market that cause the market allocation to be inefficient
- A) True
  - B) False
64. If steak and potatoes are complements, when the price of steak goes up, the demand curve for potatoes:
- A) shifts to the right.
  - B) shifts to the left.
  - C) stays the same.
  - D) shifts to the right and then moves back.
65. The socially optimal quantity of pollution occurs where:
- A) there is no pollution.
  - B) the marginal social benefit of pollution is greater than the marginal social cost of pollution.
  - C) the marginal social benefit of pollution is equal to the marginal social cost of pollution.
  - D) the marginal social benefit of pollution is less than the marginal social cost of pollution.
66. An isocost lines identifies all those combinations of inputs that can be purchased for a given amount of the money
- A) True
  - B) False

Use the following to answer question 67:

**Figure: Strawberries and Submarines II**



67. (Figure: Strawberries and Submarines II) Suppose the economy is now operating at point A. The first submarine, which is achieved at point B, would have an opportunity cost of \_\_\_\_\_ million tons of strawberries.
- A) 50
  - B) 150
  - C) 400
  - D) 950
68. Edward hates brussel sprouts and Bud Lite (an American "beer"): both, for him, are bads. His indifference curves for these two commodities
- A) Slope up
  - B) Are horizontal lines
  - C) Are vertical lines
  - D) Slope down
69. George steals your wallet, making himself better off, and you worse off. Before the theft took place the allocation of resources was necessarily efficient.
- A) True
  - B) False

70. Santa Claus on Christmas Eve is
- A) Not a public commodity because his services on Christmas Eve are not congestible.
  - B) A good example of a public commodity because his time is not rivalrous.
  - C) Not a public commodity because his services on Christmas Eve are excludable
  - D) A good example of a public commodity because his time is not congestible.
71. When production in a society is efficient, it is still possible to make some members of society better off, without making any other members worse off.
- A) True
  - B) False
72. Marginal revenue:
- A) is the slope of the average revenue curve.
  - B) is the change in quantity divided by the change in total revenue.
  - C) is the price divided by the change in quantity.
  - D) equals the market price in perfect competition.
73. With respect to the allocation of public goods the market fails
- A) True
  - B) False
74. In the perfectly competitive guidebook industry, the market price is \$35. A firm is currently producing 10,000 guidebooks; average total cost is \$38, marginal cost is \$30, and average variable cost is \$30. The firm should:
- A) raise the price of guidebooks, because the firm is losing money.
  - B) keep output the same, because the firm is producing at minimum average variable cost.
  - C) produce more guidebooks, because the next guidebook produced increases profit by \$5.
  - D) shut down, because the firm is losing money.
75. Zoe's Bakery operates in a perfectly competitive industry. Suppose that when the market price is \$5, the profit-maximizing output level of pastries is 150 units, with average total cost of \$4, and average variable cost of \$3. From this we know Zoe's marginal cost is \_\_\_\_\_, and her short-run profits are \_\_\_\_\_.
- A) \$5; \$150
  - B) \$5; \$300
  - C) \$1; \$150
  - D) \$1; \$300

76. A perfectly competitive firm is definitely earning an economic profit when:
- A)  $MR > MC$ .
  - B)  $P > ATC$ .
  - C)  $P > MC$ .
  - D)  $P > AVC$ .

Use the following to answer question 77:

**Table: Soybean Cost**

Quantity of Soybeans (bushels)	Total Cost ( <i>TC</i> )
0	12
1	26
2	33
3	42
4	54
5	69
6	84
7	104

77. (Table: Soybean Cost) The costs of production of a perfectly competitive soybean farmer are given in the table. If the market price of a bushel of soybeans is \$15, how many bushels will the farmer produce to maximize short-run profit?
- A) 3
  - B) 5
  - C) 7
  - D) 4
78. Consider the total quantity of goods produced. Consider bundles A and B, where B contains all that is in A, plus some more goods. Bundle A is necessarily less efficient than bundle B
- A) True
  - B) False
79. The short-run average total cost curve is U-shaped because at low output levels the spreading effect of falling average fixed costs dominates the diminishing returns effect, while at high output levels the reverse is true.
- A) True
  - B) False

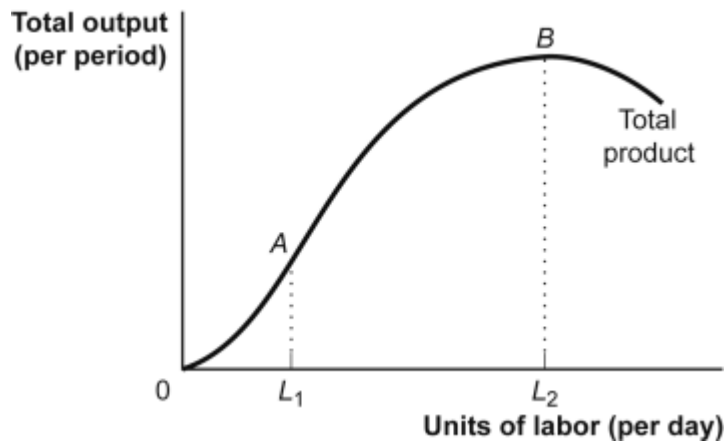


80. To say that you can't have too much of a good thing means that for any good that you enjoy (for example, pizza):
- A) higher consumption will cause utility to increase at an increasing rate.
  - B) higher consumption will increase utility but only up to a point; after that utility will start to decrease.
  - C) higher consumption will always lead to greater utility.
  - D) it is valid to measure utility in utils.
81. The marginal cost curve is the mirror image of the:
- A) average total cost curve.
  - B) marginal product curve.
  - C) average product curve.
  - D) total product curve.
82. If Marie Marionettes is operating under conditions of diminishing marginal product, the marginal costs will be:
- A) increasing.
  - B) decreasing.
  - C) constant.
  - D) equal to *ATC*.
83. The cost of leaving the skating championship before it ends is \_\_\_\_\_, while the cost of staying for the entire match is \_\_\_\_\_.
- A) the cost of the ticket; also the cost of the ticket
  - B) the opportunity cost of not seeing the perfect "10" performance; the opportunity cost of what else you could have done during that time
  - C) the opportunity cost of not seeing the perfect "10" performance; zero—the ticket to the championship is already paid so there is no cost
  - D) zero—you don't have to pay to leave; zero—the ticket to the match is already paid so there is no cost
84. If all firms in an industry are price-takers, then:
- A) an individual firm cannot alter the market price even if it doubles its output.
  - B) the market sets the price, and each firm can take it or leave it (by setting a different price).
  - C) each firm can take the price that it wants to charge and sell at this price, provided it is not too different from the prices other firms are charging.
  - D) each firm takes the market price as given for its current output level, recognizing that the price will change if it alters its output significantly.

85. A cost that does not depend on the quantity of output produced is called a:
- A) variable cost.
  - B) marginal cost.
  - C) fixed cost.
  - D) average cost.
86. An external effect occurs when the actions of one economic agent directly affects, not indirectly through market prices, another economic agent.
- A) True
  - B) False
87. Which of the following is an example of a negative external effect?
- A) high prices for necessities such as drinking water in the aftermath of a natural disaster
  - B) unemployment in the steel industry caused by low prices of imported (external) steel
  - C) the risks to nonsmokers from second-hand smoke
  - D) the increased risk of a traffic accident to an individual who uses a cell phone while driving
88. Lilly is the price-taking owner of an apple orchard. Currently the price of apples is high enough that Lilly is earning positive economic profits. In the long run, Lilly should expect:
- A) higher apple prices due to entry of new firms.
  - B) higher apple prices due to exit of existing firms.
  - C) lower apple prices due to entry of new firms.
  - D) lower apple prices due to exit of existing firms.
89. The Atlanta Symphony wants to make sure that its concerts are affordable for all residents of Atlanta and therefore prices all its tickets at \$25 each. However, outside Symphony Hall, scalpers can sell the same tickets for \$75 or more. The true cost to the concertgoer of a ticket to the symphony is at least:
- A) \$25.
  - B) \$100.
  - C) \$50.
  - D) \$75.

Use the following to answer question 90:

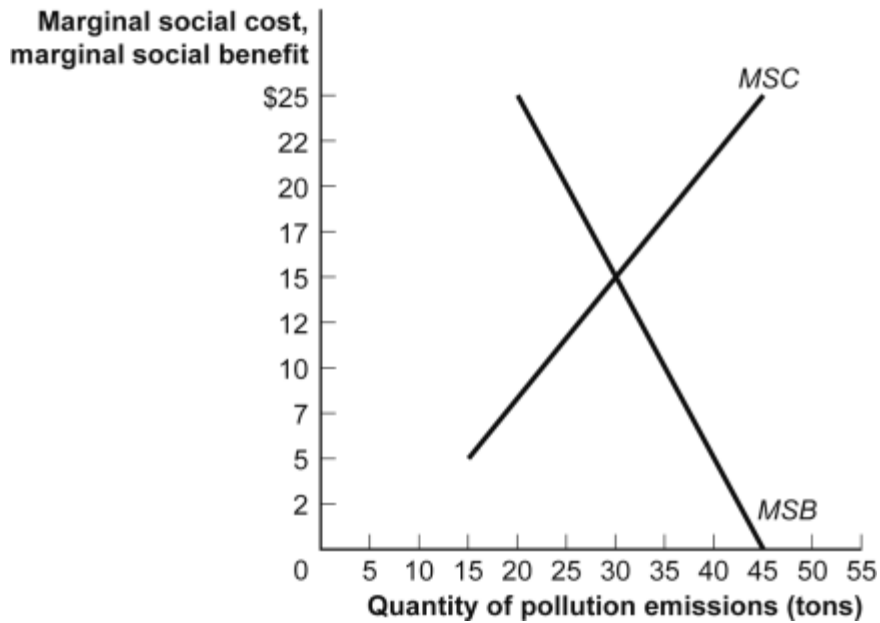
**Figure: Total Product**



90. (Figure: Total Product) Between points *A* and *B* the marginal product of labor is:
- A) increasing.
  - B) zero.
  - C) falling.
  - D) infinite.
91. Marginal cost can be calculated as:
- A) the slope of the total cost curve.
  - B)  $\Delta TC/\Delta Q$ , where *TC* is total cost and *Q* is output.
  - C)  $\Delta VC/\Delta Q$ , where *VC* is variable cost and *Q* is output.
  - D)  $\Delta TC/\Delta Q$ , where *TC* is total cost and *Q* is output;  $\Delta VC/\Delta Q$ , where *VC* is variable cost and *Q* is output; and as the slope of the total cost curve.
92. Rent controls set a price ceiling below the equilibrium price and therefore:
- A) poor people will obviously be helped.
  - B) quantity supplied exceeds the quantity demanded.
  - C) a surplus of rental units will result.
  - D) quantity demanded exceeds the quantity supplied.

Use the following to answer question 93:

**Figure: Efficiency and Pollution**

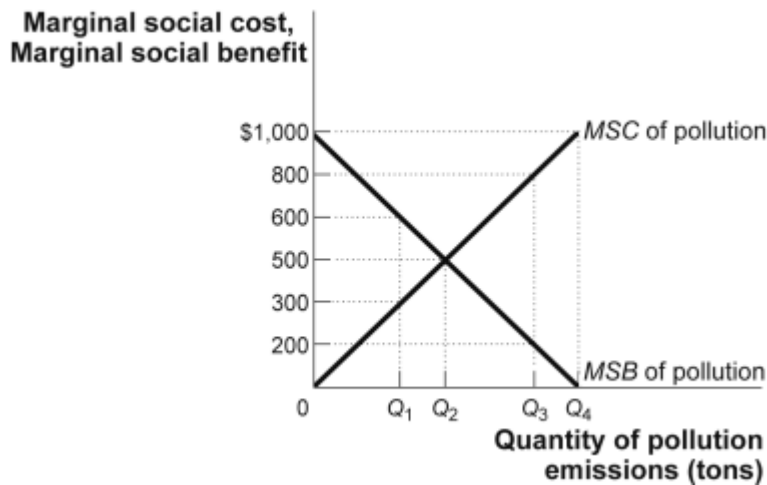


93. (Figure: Efficiency and Pollution) In the absence of government intervention, the quantity of pollution will be:
- A) 30 tons.
  - B) 45 tons.
  - C) 40 tons.
  - D) 20 tons.
94. More efficient is always preferred to less efficient.
- A) True
  - B) False
95. Assume, consistent with the facts, that construction of housing in Europe involves more recycling of existing building than in the U.S. where most construction is new construction. So, Europeans are necessarily more efficient in the production of housing than we are here in the U.S.
- A) True
  - B) False

96. Lauren has 11 people working in her tangerine grove. The marginal product of the eleventh worker equals 13 bushels of tangerines. If she hires a twelfth worker, the marginal product of that worker will equal:
- A) The answer cannot be determined with the information available.
  - B) 15 bushels.
  - C) 14 bushels.
  - D) 12 bushels.

Use the following to answer question 97:

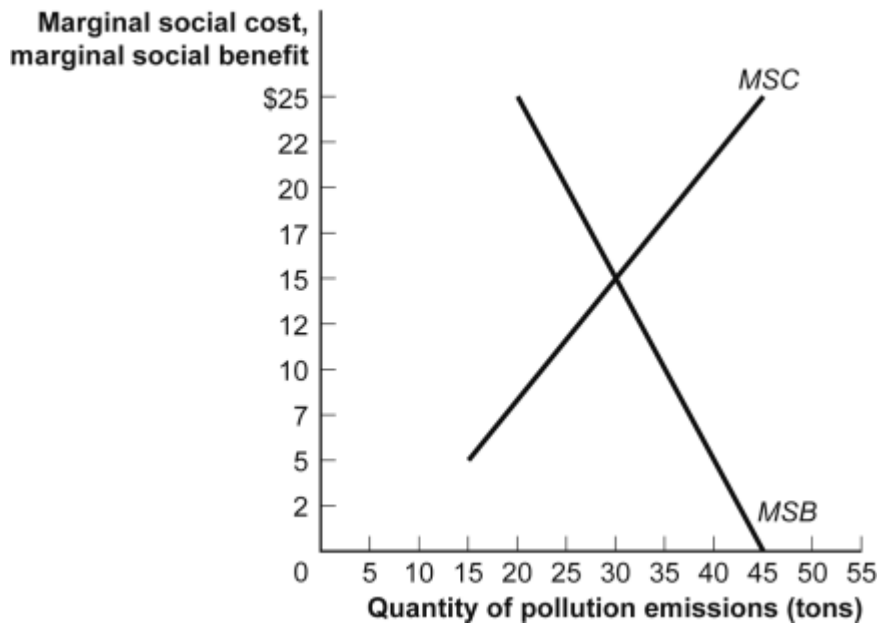
**Figure: *MSB* and *MSC* of Pollution**



97. (Figure: *MSB* and *MSC* of Pollution) The accompanying graph shows the marginal social cost and marginal social benefit of pollution. If the current level of pollution is at  $Q_1$ :
- A) not enough pollution is being emitted, as the  $MSB > MSC$ .
  - B) not enough pollution is being emitted, as the  $MSB < MSC$ .
  - C) too much pollution is being emitted, as the  $MSB > MSC$ .
  - D) the socially optimal amount of pollution is being emitted, as the  $MSB = MSC$ .
98. The goal of a firm is to minimize its costs.
- A) True
  - B) False

Use the following to answer question 99:

**Figure: Efficiency and Pollution**



99. (Figure: Efficiency and Pollution) If the government imposed an environmental standard that did not allow the quantity of pollution to exceed 30 tons, there would be:
- A) too much pollution, because any pollution is too much pollution from an economist's perspective.
  - B) a socially optimal quantity of pollution.
  - C) too much pollution, because the marginal social cost of pollution would exceed the marginal social benefit of pollution.
  - D) too little pollution, because the marginal social benefit of pollution would exceed the marginal social cost of pollution.
100. The price elasticity of demand can be found by:
- A) measuring absolute changes in price and quantity demanded.
  - B) comparing the percentage change in quantity demanded to the percentage change in price.
  - C) examining only the slope of the demand curve.
  - D) knowing that when price changes, the quantity demanded goes in the opposite direction.

101. The organized exchange of licenses that enable the holder to pollute up to a specified amount during a given time period is called:
- A) environmental standards.
  - B) emissions taxes.
  - C) Pigouvian taxes.
  - D) tradable emissions permits.
102. In a society that consists of one individual, which statement best describes the allocation of resources that is socially optimal
- A) The allocation is efficient
  - B) It is an equilibrium
  - C) The individual is doing the best they can given their constraints
  - D) The individual is doing well
103. There are two plants (*A* and *B*) in an industry. To reduce pollution, the government has imposed environmental standards forcing each plant to cut emissions by 60%. At the emissions standard, the marginal social benefit of pollution for Plant *A* is \$500 and the marginal social benefit of pollution for Plant *B* is \$125. The same level of pollution can be achieved at a lower cost by:
- A) allowing both plants to pollute more.
  - B) forcing Plant *A* to reduce emissions and allowing Plant *B* to increase emissions.
  - C) forcing both plants to reduce emissions.
  - D) allowing Plant *A* to pollute more and Plant *B* to pollute less.
104. If a perfectly competitive firm reduces its output, the market price will increase.
- A) True
  - B) False
105. A market that is in long-run equilibrium must also be in short-run equilibrium.
- A) True
  - B) False
106. To produce 10 deep-fried cats one must choose an input combination on the isoquant for 10 deep-fried cats.
- A) True
  - B) False

Use the following to answer question 107:

**Table: Labor and Output**

<b>Quantity of Labor</b>	<b>Total Output</b>
0	0
1	12
2	22
3	30
4	36
5	40
6	43
7	44

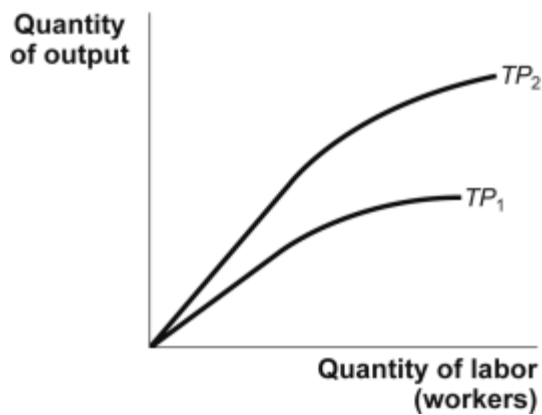
107. (Table: Labor and Output) Referring to the table, the average product when four workers are employed is:
- A) 10.
  - B) 9.
  - C) 36.
  - D) 6.
108. The term *diminishing returns* refers to:
- A) a decrease in the extra output due to the use of an additional unit of a variable input, when more and more of the variable input is used and all other things are held constant.
  - B) a decrease in total output due to overcrowding, when too much labor is used with too little land or capital.
  - C) a reduction in profits caused by increasing output beyond the optimal point.
  - D) a falling interest rate that can be expected as one's investment in a single asset increases.
109. The \_\_\_\_\_ is the increase in output obtained by hiring an additional worker.
- A) marginal product
  - B) total product
  - C) marginal cost
  - D) average product



110. Zoe's Bakery operates in a perfectly competitive industry. The variable costs at Zoe's Bakery increase, so all the cost curves (with the exception of fixed cost) shift leftward. The demand for Zoe's pastries does not change, nor does the firm shut down. Hence, Zoe's Bakery will \_\_\_\_\_ its price and \_\_\_\_\_ its level of production.
- A) raise; increase  
 B) decrease; increase  
 C) raise; decrease  
 D) not change; decrease
111. Fabian wants to get exactly 70% on the final. Fabian produces the exam score using two inputs: hours of study time and milligrams of a drug that helps him to concentrate. Which of the following statements is both necessarily correct and most informative
- A) His isoquant for producing a 70% result is the rate at which he can substitute study hours for milligrams of drugs in the production of the 70% score  
 B) His isoquant for producing the 70% score identifies all the different ways he would like to achieve a 70% score.  
 C) Fabian will get a 70% score on the exam  
 D) His isoquant for producing a 70% result identifies all those combinations of study hours and milligrams of drugs that will just get him a score of 70%.
112. If Jakob knows the marginal cost of producing the seventh sports jersey is \$21, then the total cost of seven sports jerseys is:
- A) \$147.  
 B) \$21.  
 C) \$60.  
 D) The answer cannot be determined from the information provided.

Use the following to answer question 113:

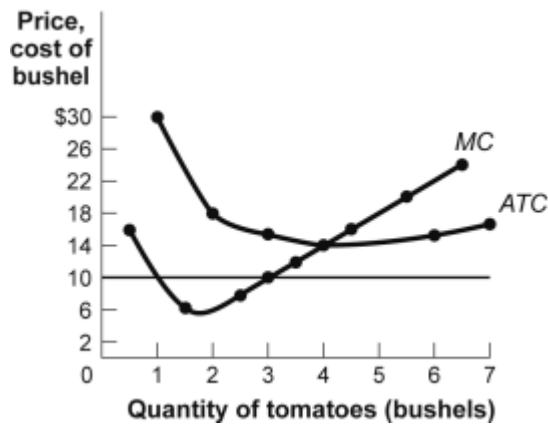
**Figure: Change in Total Product**



113. (Figure: Change in Total Product) The figure shows a production function changing from  $TP_1$  to  $TP_2$ . Which of the following choices is a likely cause of this shift?
- A) Workers in the firm are less productive on average.
  - B) The firm employed more of an input that was fixed in the short run.
  - C) The firm employed more of a variable input in the short run.
  - D) The firm has suffered a decrease in available technology.
114. Which statement best describes how goods and services will be distributed in a competitive market economy.
- A) The more resources one owns/controls, the more of the goods-and-services pie one will consume
  - B) Who gets what depends on property rights
  - C) Those who work hardest will get the most stuff.
  - D) They will be distributed equitably, everyone getting their fair share.

Use the following to answer question 115:

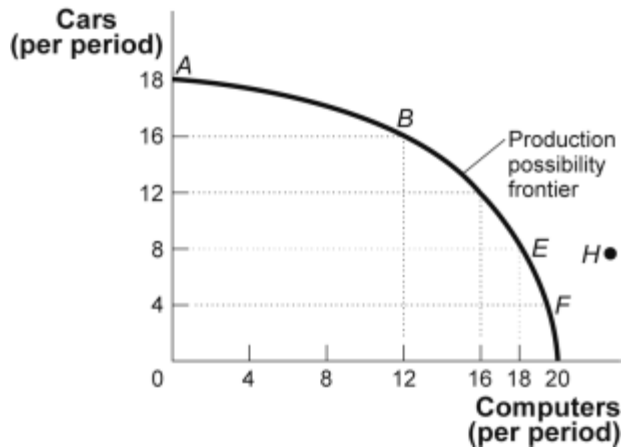
**Figure: Revenues, Costs, and Profits II**



115. (Figure: Revenues, Costs, and Profits II) In the figure, at the profit-maximizing quantity of output, total revenue is \$\_\_\_\_\_, total cost is \$\_\_\_\_\_, and profit is \$\_\_\_\_\_.
- A) 56; 56; 0
  - B) 30; 48; -18
  - C) 90; 72; 18
  - D) 48; 56; -8

Use the following to answer question 116:

**Figure: Production Possibility Frontier**

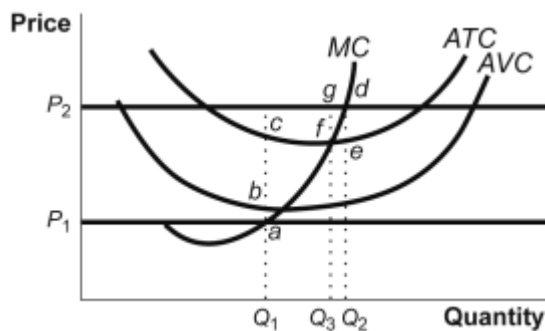


116. (Figure: Production Possibility Frontier) Points *A*, *B*, *E*, and *F*:
- A) show that the opportunity cost of more cars increases, but that of more computers decreases.
  - B) indicate constant costs for cars and increasing costs for computers.
  - C) indicate that society wants computers more than cars.
  - D) indicate combinations of cars and computers that society can produce using all of its resources efficiently.
117. The long run is a planning period:
- A) that must be between 6 months and 5 years.
  - B) that must be over 6 months in length.
  - C) that is at least 5 years in length.
  - D) over which a firm can consider all inputs as variable.
118. Ice cream is congestible.
- A) True
  - B) False
119. Because Americans eat a lot of meat, and because meat production uses more resources to produce than other types of food, food production in the U.S. is inefficient.
- A) True
  - B) False

120. The best measure of the opportunity cost of any choice is:
- A) whatever you have given up to make that choice, even if no monetary costs are involved.
  - B) your hourly wage.
  - C) the cost associated with not taking full advantage of the opportunity offered by that choice.
  - D) the monetary cost of that choice.
121. If society's WTP for an additional unit of diamonds is greater than its WTP for an additional unit of food for poor people, this indicates that the utility the consumers of the diamonds will get from the additional diamonds is greater than the marginal utility the poor will get from the consumption of the additional food.
- A) True
  - B) False
122. Ingrid, when she is in Sweden, and not skiing for CU, consumes only pickled herring and Akvavit (a Swedish type of booze). She loves pickled herring: the more the better, but is indifferent to the amount of Akvavit she drinks. Consider her indifference curves with Akvavit on the vertical axis and herring on the horizontal axis
- A) Ingrid's indifference curves are vertical lines
  - B) Ingrid's indifference curves are upward sloping
  - C) Ingrid's indifference curves are downward sloping
  - D) Ingrid's indifference curves are flat (horizontal lines)

Use the following to answer question 123:

**Figure: Prices, Cost Curves, and Profits**



123. (Figure: Prices, Cost Curves, and Profits) In the figure, if the price is  $P_2$ , then the maximum profit the firm can earn is:
- A)  $(de) \times P_2$ .
  - B)  $(de) \times Q_2$ .
  - C)  $(fg) \times Q_3$ .
  - D)  $(fg) \times Q_2$ .

## Answer Key

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

- 45. A
- 46. C
- 47. B
- 48. B
- 49. A
- 50. B
- 51. D
- 52. D
- 53. B
- 54. A
- 55. A
- 56. B
- 57. C
- 58. C
- 59. B
- 60. A
- 61. C
- 62. A
- 63. A
- 64. B
- 65. C
- 66. A
- 67. A
- 68. D
- 69. B
- 70. C
- 71. A
- 72. D
- 73. A
- 74. C
- 75. A
- 76. B
- 77. B
- 78. B
- 79. A
- 80. C
- 81. B
- 82. A
- 83. B
- 84. A
- 85. C
- 86. A
- 87. C
- 88. C
- 89. D
- 90. C

- 91. D
- 92. D
- 93. B
- 94. B
- 95. B
- 96. A
- 97. A
- 98. B
- 99. B
- 100. B
- 101. D
- 102. C
- 103. D
- 104. B
- 105. A
- 106. B
- 107. B
- 108. A
- 109. A
- 110. D
- 111. D
- 112. D
- 113. B
- 114. A
- 115. B
- 116. D
- 117. D
- 118. A
- 119. B
- 120. A
- 121. A
- 122. A
- 123. B