Econ 2302 - Principles of Microeconomics - Assignment 3

Multiple Choice
Identify the choice that best completes the statement or answers the question.

____ 1. Goods that are excludable include both
- a. club goods and public goods.
- b. public goods and common resources.
- c. common resources and private goods.
- d. private goods and club goods.

____ 2. The Great Lakes are
- a. private goods.
- b. club goods.
- c. common resources.
- d. public goods.

____ 3. The Mansfield Public Library has a large number of books that anyone with a library card may borrow. Anyone can obtain a card for free. Because the number of copies of each book is limited, not everyone can have the same book at the same time. What type of good would the library books be classified as in this case?
- a. private goods
- b. club goods
- c. common resources
- d. public goods

____ 4. The national defense of the United States is *not* rival because
- a. my enjoyment of the national defense does not diminish your enjoyment of the national defense of the United States.
- b. my enjoyment of the national defense does diminish your enjoyment of the national defense of the United States.
- c. once the nation is defended, it is impossible to prevent any single person from enjoying the benefit of this defense.
- d. once the nation is defended, it is possible to prevent any single person from enjoying the benefit of this defense.

____ 5. National defense is provided by the government because
- a. it is impossible for private markets to produce public goods.
- b. products provided by the government are produced more efficiently.
- c. free-riders make it difficult for private markets to supply the socially optimal quantity.
- d. public goods increase government revenues.

____ 6. Which of the following is an example of general knowledge, as opposed to specific knowledge that can be patented?
- a. the invention of a longer-lasting battery
- b. a mathematical theorem
- c. a method for constucting a high-performance microchip
- d. the chemical formula for an adhesive

____ 7. Which of the following is *not* a way for the government to solve the problem of excessive use of common resources?
a. regulation
b. taxes
c. turning the common resource into a public good
d. turning the common resource into a private good

____ 8. Which of the following is *not* a common resource?
a. congested roads
b. clean water
c. wild gorillas
d. a fireworks display

____ 9. Which of the following is an example of government intervention to solve a Tragedy of the Commons problem?
a. subsidizing basic research
b. building lighthouses
c. toll charges on congested roads
d. cost-benefit analysis

____ 10. Phil owns 10 acres of beautiful wooded land. When Phil decides to move to be closer to his grandchildren, he donates the land to the state with the understanding that the land will be used as a state park. Phil wants an efficient way to prevent overcrowding at the park, so he should require
a. that no park visitors ever pay an entry fee.
b. that the park limit the number of visitors to 500 per day, without an entry fee.
c. an entry fee be charged on summer weekend days when many people tend to visit the park
d. an entry fee be charged every day of the year, regardless of the number of people who would like to visit the park.

____ 11. Markets fail to allocate resources efficiently when
a. prices fluctuate.
b. people who have property rights abuse their privileges.
c. property rights are not well established.
d. the government refuses to intervene in private markets.

____ 12. In designing a tax system, policymakers have two objectives that are often conflicting. They are
a. maximizing revenue and minimizing costs to taxpayers.
b. efficiency and minimizing costs to taxpayers.
c. efficiency and equity.
d. maximizing revenue and reducing the national debt.

____ 13. Which of the following is *not* a cost of taxes to taxpayers?
a. the tax payment itself
b. deadweight losses
c. administrative burdens
d. goods and services provided by the government

____ 14. A tax system with little deadweight loss and a small administrative burden would be described as
a. equitable.
b. communistic.
c. capitalistic.
d. efficient.

____ 15. Taxes create deadweight loss when they
a. distort behavior.
b. cause the price of the product to increase.
c. don't raise sufficient government revenue.
d. cannot be computed easily.

____ 16. Part of the deadweight loss from taxing labor earnings is that people
a. will work more.
b. will be reluctant to hire accountants to file their tax returns.
c. with low tax liabilities will universally be worse off than under some other tax policy.
d. will work less.

____ 17. Pat calculates that for every extra dollar she earns, she owes the government 33 cents. Her total income now is $35,000, on which she pays taxes of $7,000. Determine her average tax rate and her marginal tax rate.
a. Her average tax rate is 33% and her marginal tax rate is 20%.
b. Her average tax rate is 20% and her marginal tax rate is 33%.
c. Her average tax rate is 20% and her marginal tax rate is 20%.
d. Her average tax rate is 33% and her marginal tax rate is 33%.

____ 18. Under a progressive tax system, the marginal tax rate could be equal to the average tax rate only when a taxpayer
a. has a very high income.
b. has a very low income.
c. is self-employed.
d. invests in a retirement plan.

Table 12-7

Income	**Tax rate**
$0 to $50,000	20%
$50,001 to $100,000	40%
Over $100,000	60%

____ 19. **Refer to Table 12-7**. What is the marginal tax rate for a person who makes $37,000?
a. 9.25%
b. 20%
c. 25%
d. 40%

____ 20. The benefits principle of taxation can be used to argue that wealthy citizens should pay higher taxes than poorer ones on the basis that
a. police services are more frequently used in poor neighborhoods.
b. the wealthy benefit more from services provided by government than the poor.
c. the poor are more active in political processes.
d. the poor receive welfare payments.

____ 21. The argument that each person should pay taxes according to how well the individual can shoulder the burden is called
a. the ability-to-pay principle.
b. the equity principle.
c. the benefits principle.
d. regressive.

Table 12-13

The dollar amounts in the last three columns are the taxes owed under the three different tax systems.

Income	Tax System A	Tax System B	Tax System C
$ 50,000	$10,000	$25,000	$10,000
100,000	25,000	30,000	20,000
200,000	80,000	40,000	40,000

____ 22. **Refer to Table 12-13** Which of the three tax systems is *regressive*?
a. Tax System A
b. Tax System B
c. Tax System C
d. None of the systems are regressive.

____ 23. When the marginal tax rate exceeds the average tax rate, the tax is
a. proportional.
b. regressive.
c. non-egalitarian.
d. progressive.

____ 24. The amount of money that a firm pays to buy inputs is called
a. total cost.
b. variable cost.
c. marginal cost.
d. fixed cost.

____ 25. Gloria has decided to start her own snow removal business. To purchase the necessary equipment, Gloria withdrew $2,000 from her savings account, which was earning 3% interest, and borrowed an additional $4,000 from the bank at an interest rate of 7%. What is Gloria's annual opportunity cost of the financial capital that has been invested in the business?

a. $60
b. $280
c. $340
d. $660

____ 26. Implicit costs

a. do not require an outlay of money by the firm.
b. do not enter into the economist's measurement of a firm's profit.
c. are also known as variable costs.
d. are not part of an economist's measurement of opportunity cost.

Scenario 13-3

Gary is a senior majoring in computer network development at Smart State University. While he has been attending college, Gary started a computer consulting business to help senior citizens set up their network connections and teach them how to use e-mail. Gary charges $25 per hour for his consulting services. Gary also works 5 hours a week for the Economics Department to maintain that department's Web page. The Economics Department pays Gary $20 per hour.

____ 27. **Refer to Scenario 13-3.** If Gary can work additional hours at either job, what is the opportunity cost if Gary spends one hour reading a novel?

a. $20
b. $25
c. $100
d. $125

Scenario 13-9

Jessica makes photo frames. She spends $5 on the materials for each photo frame. She can create one photo frame in an hour. She earns $10 per hour at a part-time job at the local coffee shop. She can sell a photo frame for $30 each.

____ 28. **Refer to Scenario 13-9.** An accountant would calculate the total profit for one photo frame to be

a. $10.
b. $15.
c. $20.
d. $25.

____ 29. For a firm, the relationship between the quantity of inputs and quantity of output is called the

a. profit function.
b. production function.
c. total-cost function.
d. quantity function.

____ 30. David's firm experiences diminishing marginal product for all ranges of inputs. The total cost curve associated with David's firm
a. gets flatter as output increases.
b. gets steeper as output increases.
c. is constant for all ranges of output.
d. is unrelated to the production function.

____ 31. Average total cost (ATC) is calculated as follows:
a. ATC = (change in total cost)/(change in quantity of output).
b. ATC = (change in total cost)/(change in quantity of input).
c. ATC = (total cost)/(quantity of output).
d. ATC = (total cost)/(quantity of input).

Table 13-12
Betty's Bakery

Quantity of cakes	Fixed Cost	Variable Cost	Total Cost	Average Fixed Cost	Average Variable Cost	Average Total Cost	Marginal Cost
1		$13	$38				
2		$28					
3			$70				
4		$64					
5			$110				
6		$108					
7		$133					
8			$185				

____ 32. **Refer to Table 13-12.** What is the variable cost of producing 8 cakes at Betty's Bakery?
a. $120
b. $140
c. $155
d. $160

Table 13-13

Output	Total Cost
0	$40
10	$60
20	$90
30	$130
40	$180
50	$240

____ 33. **Refer to Table 13-13**. What is the total fixed cost for this firm?
a. $20
b. $30
c. $40
d. $50

____ 34. The average-total-cost curve intersects
  a. average fixed cost at the minimum of average total cost.
  b. average variable cost at the minimum of average total cost.
  c. marginal cost at the minimum of average total cost.
  d. marginal cost at the minimum of marginal cost.

____ 35. When marginal cost is greater than average cost, average cost is
  a. rising.
  b. falling.
  c. constant.
  d. The direction of change in average cost cannot be determined from this information.

____ 36. The nature of a firm's cost (fixed or variable) depends on the
  a. firm's revenues.
  b. time horizon under consideration.
  c. price the firm charges for output.
  d. explicit but not implicit costs.

____ 37. One assumption that distinguishes short-run cost analysis from long-run cost analysis for a profit-maximizing firm is that in the short run,
  a. output is not variable.
  b. the number of workers used to produce the firm's product is fixed.
  c. the size of the factory is fixed.
  d. there are no fixed costs.

____ 38. In a competitive market, the actions of any single buyer or seller will
  a. discourage entry by competitors.
  b. influence the profits of other firms in the market.
  c. have a negligible impact on the market price.
  d. None of the above is correct.

____ 39. Which of the following statements best reflects a price-taking firm?
  a. If the firm were to charge more than the going price, it would sell none of its goods.
  b. The firm has an incentive to charge less than the market price to earn higher revenue.
  c. The firm can sell only a limited amount of output at the market price before the market price will fall.
  d. Price-taking firms maximize profits by charging a price above marginal cost.

Table 14-1

Quantity	Price
0	$5
1	$5
2	$5
3	$5
4	$5
5	$5
6	$5
7	$5
8	$5
9	$5

____ 40. **Refer to Table 14-1**. Over what range of output is marginal revenue declining?
a. 1 to 6 units
b. 3 to 7 units
c. 7 to 9 units
d. Marginal revenue is constant over the entire range of output.

Table 14-2

The table represents a demand curve faced by a firm in a competitive market.

Price	Quantity
$4	0
$4	1
$4	2
$4	3
$4	4
$4	5

____ 41. **Refer to Table 14-2.** A firm operating in a competitive market maximizes total revenue by producing
a. 2 units.
b. 3 units.
c. 4 units.
d. as many units as possible.

____ 42. Suppose that in a competitive market the equilibrium price is $2.50. What is marginal revenue for the last unit sold by the typical firm in this market?
a. less than $2.50
b. more than $2.50
c. exactly $2.50
d. The marginal revenue cannot be determined without knowing the actual quantity sold by the typical firm.

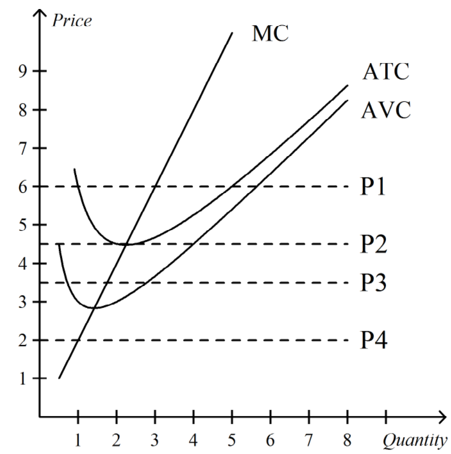
____ 43. Profit-maximizing firms enter a competitive market when existing firms in that market have
a. total revenues that exceed fixed costs.
b. total revenues that exceed total variable costs.
c. average total costs that exceed average revenue.
d. average total costs less than market price.

____ 44. Mrs. Smith operates a business in a competitive market. The current market price is \$7.50. At her profit-maximizing level of production, the average variable cost is \$8.00, and the average total cost is \$8.25. Mrs. Smith should

a. shut down her business in the short run but continue to operate in the long run.
b. continue to operate in the short run but shut down in the long run.
c. continue to operate in both the short run and long run.
d. shut down in both the short run and long run.

Figure 14-2

Suppose a firm operating in a competitive market has the following cost curves:



____ 45. **Refer to Figure 14-2.** Which of the four prices corresponds to a firm earning negative economic profits in the short run and shutting down?

a. P1
b. P2
c. P3
d. P4

____ 46. In calculating accounting profit, accountants typically don't include

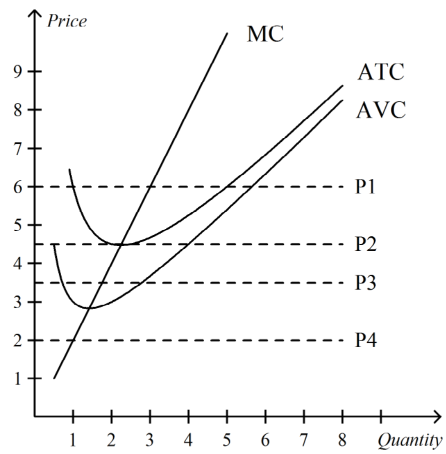
a. long-run costs.
b. sunk costs.
c. explicit costs of production.
d. opportunity costs that do not involve an outflow of money.

____ 47. In a perfectly competitive market, the process of entry and exit will end when

a. price equals minimum marginal cost.
b. marginal revenue equals marginal cost.
c. economic profits are zero.
d. accounting profits are zero.

Figure 14-13

Suppose a firm in a competitive industry has the following cost curves:



____ 48. **Refer to Figure 14-13.** If the price is P2 in the short run, what will happen in the long run?
- a. Nothing. The price is consistent with zero economic profits, so there is no incentive for firms to enter or exit the industry.
- b. Individual firms will earn positive economic profits in the short run, which will entice other firms to enter the industry.
- c. Individual firms will earn negative economic profits in the short run, which will cause some firms to exit the industry.
- d. Because the price is below the firm's average variable costs, the firms will shut down.

____ 49. In the long run the market supply
- a. must always be horizontal.
- b. could be upward sloping if the cost of production falls as new firms enter the market.
- c. could be upward sloping if the cost of production rises as new firms enter the market.
- d. could be upward sloping if technological improvements lower the cost of producing in the market.

____ 50. Suppose that a competitive market is initially in equilibrium. Then demand increases. If some resources used in production are not available in sufficient quantities for entering firms,
- a. the long-run market supply curve will be upward sloping.
- b. the long-run market supply curve will be perfectly elastic.
- c. in the long run firms will suffer economic losses, leading them to exit the industry.
- d. the number of firms will decrease, and the market will become a monopoly.

____ 51. Profit maximizing firms in competitive industries with free entry and exit face a price equal to the lowest possible
- a. marginal cost of production.
- b. fixed cost of production.
- c. total cost of production.
- d. average total cost of production.

____ 52. Because a monopolist does not face competition from other firms, the outcome in a market with a monopoly
   a. does not illustrate profit maximization.
   b. is often not in the best interest of society.
   c. is characterized by unlimited profits.
   d. would be improved if the government produced the product rather than a private firm.

____ 53. A firm that is the sole seller of a product without close substitutes is
   a. perfectly competitive.
   b. monopolistically competitive.
   c. an oligopolist.
   d. a monopolist.

____ 54. Which of the following is *not* an example of a barrier to entry?
   a. Mighty Mitch's Mining Company owns a unique plot of land in Tanzania, under which lies the only large deposit of Tanzanite in the world.
   b. A pharmaceutical company obtains a patent for a specific high blood pressure medication.
   c. A musician obtains a copyright for her original song.
   d. An entrepreneur opens a popular new restaurant.

____ 55. Which of the following is *not* an example of a barrier to entry?
   a. A soybean farmer is the first in her county to use a new brand of fertilizer.
   b. Microsoft obtains a copyright for its Windows operating system.
   c. A pharmaceutical company obtains a patent for a new medication to treat migraine headaches.
   d. A taxi cab driver in New York City obtains a license to legally provide transportation in New York City.

____ 56. A fundamental source of monopoly market power arises from
   a. perfectly elastic demand.
   b. perfectly inelastic demand.
   c. barriers to entry.
   d. availability of "free" natural resources, such as water or air.

____ 57. In order to sell more of its product, a monopolist must
   a. sell to the government.
   b. sell in international markets.
   c. lower its price.
   d. use its market power to force up the price of complementary products.

____ 58. Monopoly firms have
   a. downward-sloping demand curves, and they can sell as much output as they desire at the market price.
   b. downward-sloping demand curves, and they can sell only a limited quantity of output at each price.
   c. horizontal demand curves, and they can sell as much output as they desire at the market price.
   d. horizontal demand curves, and they can sell only a limited quantity of output at each price.

____ 59. When a monopoly increases its output and sales,

a. both the output effect and the price effect work to increase total revenue.
b. the output effect works to increase total revenue, and the price effect works to decrease total revenue.
c. the output effect works to decrease total revenue, and the price effect works to increase total revenue.
d. both the output effect and the price effect work to decrease total revenue.

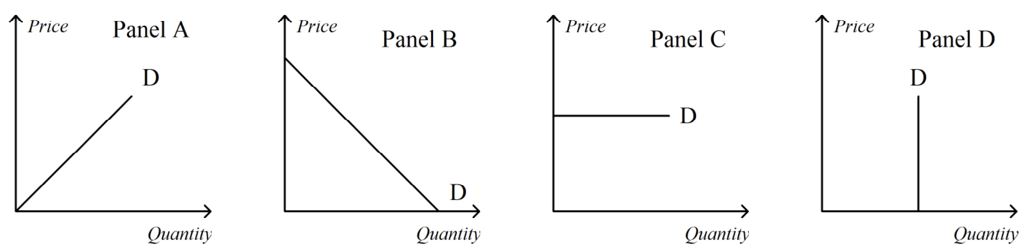
____ 60. A monopolist can sell 200 units of output for $36 per unit. Alternatively, it can sell 201 units of output for $35.80 per unit. The marginal revenue of the 201st unit of output is

a. $-4.20.
b. $-0.20.
c. $4.20.
d. $35.80.

____ 61. Angelo is a wholesale meatball distributor. He sells his meatballs to all the finest Italian restaurants in town. Nobody can make meatballs like Angelo. As a result, his is the only business in town that sells meatballs to restaurants. Assuming that Angelo is maximizing his profit, which of the following statements is true?

a. Meatball prices will be less than marginal cost.
b. Meatball prices will equal marginal cost.
c. Meatball prices will exceed marginal cost.
d. Costs are irrelevant to Angelo because he is a monopolist.

Figure 15-2



____ 62. **Refer to Figure 15-2.** Which panel could represent the demand curve facing a soybean farmer?

a. Panel A
b. Panel B
c. Panel C
d. Panel D

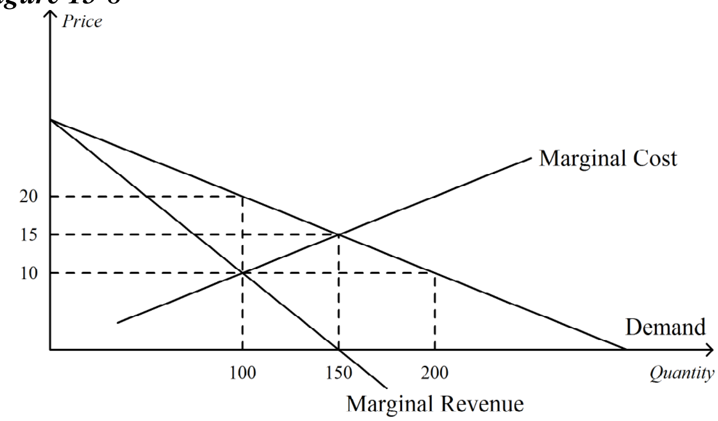
Table 15-7
Sally owns the only shoe store in town. She has the following cost and revenue information.

COSTS			REVENUES			
Quantity Produced (pairs)	**Total Cost ($)**	**Marginal Cost**	**Quantity Demanded**	**Price ($/unit)**	**Total Revenue**	**Marginal Revenue**
0	100	--	0	170		--
1	140		1	160		
2	184		2	150		
3	230		3	140		
4	280		4	130		
5	335		5	120		
6	395		6	110		
7	475		7	100		
8	565		8	90		

____ 63. **Refer to Table 15-7**. What are Sally's fixed costs?
a. $0
b. $100
c. $600
d. $745

____ 64. For a monopoly, the socially efficient level of output occurs where
a. marginal revenue equals marginal cost.
b. average revenue equals marginal cost.
c. marginal revenue equals average total cost.
d. average revenue equals average total cost.

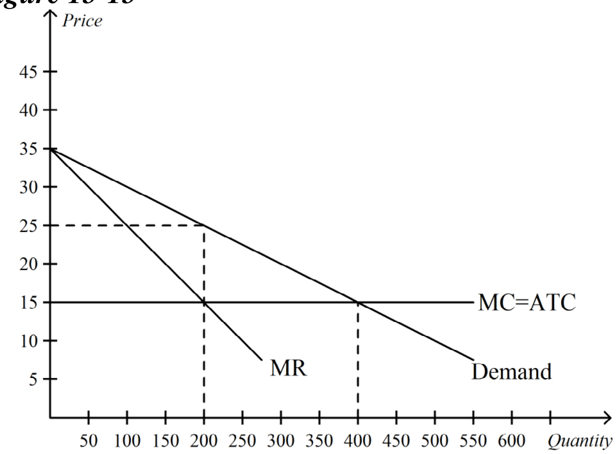
Figure 15-8



____ 65. **Refer to Figure 15-8**. To maximize its profit, a monopolist would choose which of the following outcomes?
a. 100 units of output and a price of $10 per unit
b. 100 units of output and a price of $20 per unit
c. 150 units of output and a price of $15 per unit
d. 200 units of output and a price of $20 per unit

____ 66. The practice of selling the same goods to different customers at different prices, but with the same marginal cost, is known as
a. price segregation.
b. price discrimination.
c. arbitrage.
d. monopoly pricing.

Figure 15-15



____ 67. **Refer to Figure 15-15**. If there are no fixed costs of production, monopoly profit with perfect price discrimination equals
a. $500.
b. $1,000.
c. $2,000.
d. $4,000.

____ 68. Price discrimination is a rational strategy for a profit-maximizing monopolist when
a. the monopolist finds itself able to produce only limited quantities of output.
b. consumers are unable to be segmented into identifiable markets.
c. the monopolist wishes to increase the deadweight loss that results from profit-maximizing behavior.
d. there is no opportunity for arbitrage across market segments.

____ 69. When regulators use a marginal-cost pricing strategy to regulate a natural monopoly, the regulated monopoly
a. will experience a loss.
b. will experience a price below average total cost.
c. may rely on a government subsidy to remain in business.
d. All of the above are correct.

____ 70. Which of the following strategies is *not* an effective strategy to reduce monopoly inefficiency?
a. antitrust laws
b. price discrimination
c. doing nothing
d. breaking up a natural monopoly into more than one firm