

ECN 302 Sample Exam 3

1. If the import supply curve is upward sloping

- A. A tariff can increase domestic aggregate surplus
- B. A quota can increase domestic aggregate surplus
- C. A tariff will decrease domestic aggregate surplus
- D. A and B

2. The market demand function for wheat is $Q^d = 10 - 2P$ and the market supply function is $Q^s = 4P - 2$, both measured in billions of bushels per year. Suppose the government wants to increase the price of wheat to \$3/bushel and they impose a voluntary production reduction program to achieve their goal. What is the size of the aggregate surplus?

- A. \$4 billion
- B. \$12 billion
- C. \$10 billion
- D. \$6 billion

3. The market demand function for wheat is $Q^d = 10 - 2P$ and the market supply function is $Q^s = 4P - 2$, both measured in billions of bushels per year. Suppose the government wants to increase the price of wheat to \$3/bushel and they impose a voluntary production reduction program to achieve their goal. What is the size of the producer surplus?

- A. \$4.5 billion
- B. \$12.5 billion
- C. \$10.5 billion
- D. \$6 billion

4. Suppose the market demand function for ice cream is $Q^d = 10 - 2P$ and the market supply function for ice cream is $Q^s = 4P - 2$, both measured in millions of gallons of ice cream per year. Suppose the government imposes a \$0.50 tax on each gallon of ice cream. The deadweight loss due to the tax is

- A. \$0.16
- B. \$2.84
- C. \$1.16
- D. \$2.36

5. An ad valorem tax

- A. Is a fixed dollar amount that must be paid on each unit bought or sold
- B. Is a tax that is stated as a percentage of the good's price
- C. Is a tax that is stated as a percentage of the good's price, which increases as quantity bought increases
- D. Is a tax that is only paid by producers

6. The Solo Coal Mine is the only employer in the small town of Way out there. The market supply of coal miners is $Q^s = 0.02W - 200$ and $Q^d = 500 - 0.02W$, where W is the annual wage of a coal miner and Q is the number of coal miners. What is the wage required to hire the profit maximizing number of workers?

- A. \$25,000
- B. \$50,000
- C. \$20,000
- D. \$15,000

7. The Solo Coal Mine is the only employer in the small town of Way out there. The market supply of coal miners is $Q^s = 0.02W - 200$ and $Q^d = 500 - 0.02W$, where W is the annual wage of a coal miner and Q is the number of coal miners. What is marginal benefit function?

- A. $W = 0.02Q - 500$
- B. $W = 0.02Q + 500$
- C. $W = 25,000 - 50Q$
- D. $W = 200Q + 50,000$

8. The Solo Coal Mine is the only employer in the small town of Way out there. The market supply of coal miners is $Q^s = 0.02W - 200$ and $Q^d = 500 - 0.02W$, where W is the annual wage of a coal miner and Q is the number of coal miners. What is the profit maximizing number of coal miners for the coal mine to hire?

- A. 100
- B. 150
- C. 50
- D. 233.34

9. The difference between a monopolist's marginal expenditure and that of a price taker is

- A. The marginal cost of the input
- B. The input expansion effect
- C. The price increase effect
- D. B and C

10. A monopolist's marginal expenditure is

- A. The extra benefit from hiring or purchasing the marginal unit of an input, per marginal unit
- B. The extra cost incurred to hire or purchase the marginal units of an input, per marginal unit
- C. The difference between the marginal cost and benefit from hiring the marginal unit of an input, per marginal unit
- D. The total cost incurred to hire or purchase all units of an input in the production process

11. The Solo Coal Mine is the only employer in the small town of Way out there. The market supply of coal miners is $Q^s = 0.02W - 400$, where W is the annual wage of a coal miner and Q is the number of people who would accept employment as a coal miner. What is the coal mine's marginal expenditure when it hires 100 coal miners?

- A. \$35,000
- B. \$20,000
- C. \$10,000
- D. \$30,000

12. A movie monopolist sells to students and adults. The demand function for students is

$Q_S^d = 600 - 100P$ and the demand function for adults is $Q_A^d = 1,200 - 100P$. The marginal cost is \$2 per ticket. Suppose the movie theater can price discriminate. What is the monopolist's profit from students?

- A. \$400
- B. \$2400
- C. \$2500
- D. \$0

13. Suppose Always There Wireless serves 100 high-high demand wireless consumers, each of whose monthly demand curve for minutes of wireless service is $Q_H^d = 200 - 100P$ and 300 low-demand consumers, each of whose monthly demand curve for minutes of wireless is $Q_L^d = 100 - 100P$, where P is the per-minute price in dollars. Its marginal cost is \$0.25 per minute. Suppose Always There Wireless charges \$0.25 per minute. How many minutes will low-demand consumers purchase?

- A. 75
- B. 175
- C. 200
- D. 100

14. A movie monopolist sells to students and adults. The demand function for students is

$Q_S^d = 600 - 100P$ and the demand function for adults is $Q_A^d = 1,200 - 100P$. The marginal cost is \$2 per ticket. Suppose the movie theater can price discriminate. How many tickets does the theater sell to students to maximize profits?

- A. 2500
- B. 500
- C. 200
- D. 600

15. A movie monopolist sells to students and adults. The demand function for students is

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16. Suppose Always There Wireless serves 100 high-high demand wireless consumers, each of whose monthly demand curve for minutes of wireless service is $Q_H^d = 200 - 100P$ and 300 low-demand consumers, each of whose monthly demand curve for minutes of wireless is $Q_L^d = 100 - 100P$, where P is the per-minute price in dollars. Its marginal cost is \$0.25 per minute. Suppose Always There Wireless charges \$0.30 per minute. How many minutes will low-demand consumers purchase?

- A. 60
- B. 30
- C. 70
- D. 170

17. In a market for homogenous goods

- A. Firms sell identical products
- B. Firms sell different products
- C. Firms sell identical products for identical prices
- D. Firms sell different goods for identical prices

18. Suppose the market demand for milk is $Q^d = 150 - 5P$. Additionally, suppose that a dairy's variable costs are $VC = 2Q^2$ (where Q is the number of gallons of milk produced each day), its marginal cost is $MC = 4Q$ and there is an avoidable fixed cost of \$50 per day. In the long run there is free entry into the market. What is the market equilibrium price?

- A. \$50 per gallon
- B. \$20 per gallon
- C. \$100 per gallon
- D. \$25 per gallon

19. Characteristics of a perfectly competitive market include

- A. The absence of transaction costs
- B. Differentiated products
- C. Few sellers, some with a large market share
- D. All of the above

20. In a perfectly competitive market

- A. Firms are price setters
- B. Firms produce the quantity for which marginal cost equals price
- C. Firms can increase profits by charging a price higher than the market price
- D. A and C

21. The market demand for milk is $Q^d = 150 - 5P$. Additionally, suppose that a dairy's variable costs are $VC = 2Q^2$ (where Q is the number of gallons of milk produced each day), its marginal cost is $MC = 4Q$ and there is an avoidable fixed cost of \$50 per day. In the long run there is free entry into the market. Suppose the demand for milk doubles. If in the short run the number of firms is fixed and their fixed costs are sunk, what is the short run equilibrium price?

- A. \$20
- B. \$24
- C. \$10
- D. \$40

22. Market demand for a product

- A. Is the demand of an individual consumer
- B. Graphically is the horizontal sum of the individual demand curves
- C. Graphically is the vertical sum of the individual demand curves
- D. A and B

Sample Exam 3 Key

1. (p. 567) D
2. (p. 561) B
3. (p. 561) B
4. (p. 548) A
5. (p. 540) B
6. (p. 651) D
7. (p. 651) C
8. (p. 651) A
9. (p. 649) C
10. (p. 649) B
11. (p. 650) D
12. (p. 673) A
13. (p. 685) A
14. (p. 673) C
15. (p. 673) C
16. (p. 685) C
17. (p. 704) A
18. (p. 506) B
19. (p. 497) A
20. (p. 497) B
21. (p. 506) B
22. (p. 498) B