1. In 2003 the price of oil increased, which in turn caused the price of natural gas to rise. This can best be explained by saying that oil and natural gas are:

A. complementary goods and the higher price for oil increased the demand for natural gas.
B. substitute goods and the higher price for oil increased the demand for natural gas.
C. complementary goods and the higher price for oil decreased the supply of natural gas.
D. substitute goods and the higher price for oil decreased the supply of natural gas.

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<th>(1)</th>
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<tbody>
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<td>100</td>
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<td>6</td>
<td>30</td>
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</tbody>
</table>

2. Refer to the above table. Suppose that demand is represented by columns (3) and (2) and supply is represented by columns (3) and (5). If the price were artificially set at $6, a:
A. the market would clear.
B. a surplus of 40 units would occur.
C. a shortage of 40 units would occur.
D. demand would change from columns (3) and (2) to columns (3 and 1).

3. A competitive market will:
A. achieve an equilibrium price.
B. produce shortages.
C. produce surpluses.
D. create disorder.

(Advanced analysis) Answer the next question(s) on the basis of the following information. The demand for commodity X is represented by the equation \( P = 10 - 0.2Q \) and supply by the equation \( P = 2 + 0.2Q \).

4. Refer to the above information. If demand changed from \( P = 10 - .2Q \) to \( P = 7 - .3Q \), we can conclude that:
A. demand has increased.
B. demand has decreased.
C. supply will increase.
D. supply will decrease.
5. Refer to the above diagram. A price of $60 in this market will result in:
   A. equilibrium.
   B. a shortage of 50 units.
   C. a surplus of 50 units.
   D. a surplus of 100 units.

6. An increase in the excise tax on cigarettes raises the price of cigarettes by shifting the:
   A. demand curve for cigarettes rightward.
   B. demand curve for cigarettes leftward.
   C. supply curve for cigarettes rightward.
   D. supply curve for cigarettes leftward.

7. A normal good is one:
   A. whose amount demanded will increase as its price decreases.
   B. whose amount demanded will increase as its price increases.
   C. whose demand curve will shift leftward as incomes rise.
   D. the consumption of which varies directly with incomes.

8. When the price of oil declines significantly, the price of gasoline also declines. The latter occurs because of a(n):
   A. increase in the demand for gasoline.
   B. decrease in the demand for gasoline.
   C. increase in the supply of gasoline.
   D. decrease in the supply of gasoline.
9. The demand curve shows the relationship between:
A. money income and quantity demanded.
B. price and production costs.
C. price and quantity demanded.
D. consumer tastes and the quantity demanded.

10. An increase in product price will cause:
A. quantity demanded to decrease.
B. quantity supplied to decrease.
C. quantity demanded to increase.
D. the supply curve to shift to the right.

11. An increase in the quantity demanded means that:
A. given supply, the price of the product can be expected to decline.
B. price has declined and consumers therefore want to purchase more of the product.
C. the demand curve has shifted to the right.
D. the demand curve has shifted to the left.

12. Data from the registrar's office at Gigantic State University indicate that over the past twenty years tuition and enrollment have both increased. From this information we can conclude that:
A. higher education is an exception to the law of demand.
B. the supply of education provided by GSU has also increased over the twenty-year period.
C. school-age population, incomes, and preferences for education have changed over the twenty-year period.
D. GSU's supply curve of education is downsloping.

13. A. (Advanced analysis) The equation for the demand curve in the above diagram:
B. is \( P = 70 - Q \).
C. is \( P = 35 - 2Q \).
D. is \( P = 35 - 0.5Q \).
E. cannot be determined from the information given.
14. With a downsloping demand curve and an upsloping supply curve for a product, an increase in consumer income will:
A. increase equilibrium price and quantity if the product is a normal good.
B. decrease equilibrium price and quantity if the product is a normal good.
C. have no effect on equilibrium price and quantity.
D. reduce the quantity demanded, but not shift the demand curve.

15. If an effective ceiling price is placed on hamburgers then:
A. the quantity demanded will exceed the quantity supplied.
B. a black market for hamburger may evolve.
C. that consumers may want government to ration hamburger.
D. all of the above are likely outcomes.

16. One can say with certainty that equilibrium price will decline when supply:
A. and demand both decrease.
B. increases and demand decreases.
C. decreases and demand increases.
D. and demand both increase.

17. The relationship between quantity supplied and price is _____ and the relationship between quantity demanded and price is _____.
A. direct, inverse
B. inverse, direct
C. inverse, inverse
D. direct, direct

18. Which of the following will not cause the demand for product K to change?
A. a change in the price of close-substitute product J
B. an increase in consumer incomes
C. a change in the price of K
D. a change in consumer tastes

19. A decrease in the price of cameras will:
A. cause the demand curve for film to become vertical.
B. shift the demand curve for film to the right.
C. shift the demand curve for film to the left.
D. not affect the demand for film.

20. Markets explained on the basis of supply and demand:
A. assume many buyers and many sellers of a standardized product.
B. assume market power so that buyers and sellers bargain with one another.
C. do not exist in the real-world economy.
D. are approximated by markets in which a single seller determines price.
21. Which of the following statements is correct?
A. If demand increases and supply decreases, equilibrium price will fall.
B. If supply increases and demand decreases, equilibrium price will fall.
C. If demand decreases and supply increases, equilibrium price will rise.
D. If supply declines and demand remains constant, equilibrium price will fall.

<table>
<thead>
<tr>
<th>Quantity Demanded</th>
<th>Price</th>
<th>Quantity Supplied</th>
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</thead>
<tbody>
<tr>
<td>52</td>
<td>$50</td>
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<tr>
<td>92</td>
<td>30</td>
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</tbody>
</table>

22. In the above market, economists would call a government-set minimum price of $50 a:
A. price ceiling.
B. price floor.
C. equilibrium price.
D. fair price.

23. The supply curve shows the relationship between:
A. price and quantity supplied.
B. production costs and the amount demanded.
C. total business revenues and quantity supplied.
D. physical inputs of resources and the resulting units of output.

24. Assuming competitive markets with typical supply and demand curves, which of the following statements is correct?
A. An increase in supply with a decrease in demand will result in an increase in price.
B. An increase in supply with no change in demand will result in an increase in price.
C. An increase in supply with no change in demand will result in a decline in sales.
D. An increase in demand with no change in supply will result in an increase in sales.

25. If government set a minimum price of $50 in the above market, a:
A. shortage of 21 units would occur.
B. shortage of 125 units would occur.
C. surplus of 21 units would occur.
D. surplus of 125 units would occur.
In the following question(s) you are asked to determine, other things equal, the effects of a given change in a determinant of demand or supply for product X upon (1) the demand \((D)\) for, or supply \((S)\) of, \(X\), (2) the equilibrium price \((P)\) of \(X\) and (3) the equilibrium quantity \((Q)\) of \(X\).

26. Refer to the above. A reduction in the number of firms producing \(X\) will:
   A. increase \(D\), increase \(P\), and increase \(Q\).
   B. increase \(S\), decrease \(P\), and increase \(Q\).
   C. decrease \(S\), increase \(P\), and decrease \(Q\).
   D. decrease \(S\), decrease \(P\), and increase \(Q\).

27. If consumers are willing to pay a higher price than previously for each level of output, we can say that that following has occurred:
   A. a decrease in demand.
   B. an increase in demand.
   C. a decrease in supply.
   D. an increase in supply.

28. Refer to the above information. If demand changed from \(P = 10 - .2Q\) to \(P = 7 - .3Q\), the new equilibrium quantity is:
   A. 10.
   B. 20.
   C. 15.
   D. 30.

29. An unusually large crop of coffee beans might:
   A. increase the supply of coffee.
   B. increase the price of coffee.
   C. decrease the quantity of coffee consumed.
   D. increase the price of tea.
30. Refer to the above diagram, which shows demand and supply conditions in the competitive market for product X. Given \( D_0 \), if the supply curve moved from \( S_0 \) to \( S_1 \), then:
A. supply has increased and equilibrium quantity has decreased.
B. supply has decreased and equilibrium quantity has decreased.
C. there has been an increase in the quantity supplied.
D. supply has increased and price has risen to \( 0G \).

Pre-Test Chapter 3 ed17 Key

1. B
2. C
3. A
4. B
5. D
6. D
7. D
8. C
9. C
10. A

11. B
12. C
13. D
14. A
15. D
16. B
17. A
18. C
19. B
20. A

21. B
22. B
23. A
24. D
25. C
26. C
27. B
28. A
29. A
30. B