Unit 2 Multiple Choice Practice

1. Which of the following will not change the demand for corn?
   a. an increase in the price of a close substitute
   b. consumers prefer less corn
   c. the incomes of consumers
   d. the price of corn
   e. research showing health benefits of corn

   Answer: d  http://www.youtube.com/watch?v=_oHd4yU_jcs
   A change in price doesn’t change demand, it changes the quantity demanded. Price moves along
   the curve, it doesn’t shift the curve. Answers A, C, and E all shift the demand curve. Answer B
   shifts the supply curve. But answer B could be a viable answer because it doesn’t change
   demand for corn. Consider changing it to something about complements or expectations.

2. An economist for a skateboard company predicts that a rise in consumer incomes will
   increase the demand for skateboards. This prediction assumes that:

   a. there are many substitutes for skateboards
   b. skateboards have inelastic demand
   c. skateboards have a downward sloping demand curve.
   d. skateboards are a normal good
   e. skateboards are an inferior good

   Answer: d
   Income is one of the shifters of demand. If income goes up causing demand to go up, the product
   is a normal good. If incomes go up causing demand to decrease then it would be an inferior
   good.

3. A leftward shift in the supply curve for pianos could be caused by
   a. an increase in the wages of workers that make pianos
   b. improvements in the productivity of piano makers
   c. decrease in the price of piano parts
   d. decrease in consumer income
   e. an increase in the price of pianos

   Answer: a  http://www.youtube.com/watch?v=8yjCRZw4AsY
Wages are a cost of production. A wage increase would decrease the supply of pianos, shifting the supply curve to the left. Answers B and C shift supply right. Answers D and E don’t shift the supply curve.

4. A decrease in the price of a substitute product will change the equilibrium price and quantity in a market in which of the following ways?

<table>
<thead>
<tr>
<th>Price</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Increase</td>
<td>Decrease</td>
</tr>
<tr>
<td>b. Increase</td>
<td>Increase</td>
</tr>
<tr>
<td>c. Decrease</td>
<td>Decrease</td>
</tr>
<tr>
<td>d. Decrease</td>
<td>Increase</td>
</tr>
<tr>
<td>e. Not change</td>
<td>Decrease</td>
</tr>
</tbody>
</table>

Answer: c  [http://www.youtube.com/watch?v=7FlzcNXSI8o](http://www.youtube.com/watch?v=7FlzcNXSI8o)

Demand decreases when the price of a substitute decreases. When demand shifts left, price and quantity decrease.

5. If the demand for a product increased at the same time that technological improvements lowered production costs, what would happen to the price and quantity?

a. both price and quantity would increase
b. both price and quantity would decrease
c. price would increase and quantity would decrease
d. price would increase and quantity would be indeterminate
e. price would be indeterminate and quantity would increase

Answer: e  [http://www.youtube.com/watch?v=IJtr8pHv7HE](http://www.youtube.com/watch?v=IJtr8pHv7HE)

Double Shift Rule: When two curves shift at the same time, P or Q will be indeterminate. In this case, quantity will increase no matter what, so price is indeterminate. This means that price could go up or it could go down.

6. Which of the following would most likely occur if the government imposed a binding price ceiling?

a. quantity sold will increase
b. there will be a surplus
c. quantity demanded will increase
d. demand will increase
e. supply will shift to the right

Answer: c  [http://www.youtube.com/watch?v=YzSunN2zAXM](http://www.youtube.com/watch?v=YzSunN2zAXM)

A binding price ceiling is placed below equilibrium. The result is a shortage since quantity demand increase and quantity supplied decreases. This will not shift supply or demand.
7. Assume the price of a specific good decreases from $12 to $10 per unit and the quantity demanded increased from 10 to 15. Which of the following is true?
   a. The demand for this good is unit elastic in this price range
   b. The demand for this good is relatively inelastic in this price range
   c. The demand for this good is relatively elastic in this price range
   d. The demand for this good is perfectly elastic
   e. Firms would lower their price

Answer: c  http://www.youtube.com/watch?v=EC_NFgXL-m4  The demand is relatively elastic since the decrease in price caused the total revenue to increase. Answer E is incorrect because lowering price would cause a shortage. I added (in this price range) just to be technical…do you teach the midpoint formula for elasticity? if not or if it’s not in the college board curriculum then disregard.

8. The difference between the price a person is willing to pay for a taco and the market price that they did pay is called:
   a. marginal utility
   b. disequilibrium
   c. consumer surplus
   d. producer surplus
   e. dead-weight loss

Answer: c

Consumer surplus is the amount consumers are willing to pay minus the price of the product. Producer Surplus is the price minus the amount that producers are willing to sell the product.

9. Assume a market is currently at equilibrium. If the government provides a per unit subsidy to producers, what will happen to price, quantity, and consumer surplus?

<table>
<thead>
<tr>
<th>Price</th>
<th>Quantity</th>
<th>Consumer Surplus</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Increase</td>
<td>Decrease</td>
<td>Decrease</td>
</tr>
<tr>
<td>b. Decrease</td>
<td>Decrease</td>
<td>Increase</td>
</tr>
<tr>
<td>c. Decrease</td>
<td>Decrease</td>
<td>Decrease</td>
</tr>
<tr>
<td>d. Decrease</td>
<td>Increase</td>
<td>Increase</td>
</tr>
<tr>
<td>e. Decrease</td>
<td>Increase</td>
<td>Decrease</td>
</tr>
</tbody>
</table>

Answer: d
A subsidy shifts supply to the right as shown below. Consumer surplus increased by the light grey area.

10. Which of the following is true for the market above?
   a. Consumer surplus is $250
   b. At a price of $30 there would be a surplus
   c. A price floor at $30 would decrease the quantity produced
   d. Consumer surplus is $500
   e. At $70 the quantity demanded is greater than the quantity supplied

Answer: a
Consumer surplus is the area of the triangle below. The answer is not B because at price $30 there would be a shortage. It is not C because a price floor below equilibrium has no effect. It is not D because producer surplus is $150 (not D because you must divide by 2 for the area of a triangle). It is not E because at $70 the Qs is greater than the Qd.
11. Product X has an income elasticity of demand coefficient of -2. It also has a cross-price elasticity of demand coefficient of -2 with product Y. Which of the following is true?

a. An increase in the price for product X will cause an increase in total revenue for product X
b. Product X and product Y are substitutes
c. Product Y is an inferior good
d. The demand for product X is relatively elastic
e. An increase in the price of product Y will decrease the demand for product X

Answer: e  [http://www.youtube.com/watch?v=Ig7igjoGyjM](http://www.youtube.com/watch?v=Ig7igjoGyjM)

A negative income elasticity coefficient means that a product is an inferior good. A negative cross-price elasticity coefficient between two products means that the two products are complements. A & D are incorrect because you are not given price elasticity data in the questions.
12. The graph above shows the domestic supply and demand for a product. Assuming this country can import the product at a world price of $5, all the following are true EXCEPT:

a. Domestic producer surplus will be $E$

b. Domestic consumer surplus will be $ABCD$

c. The sum of producer and consumer surplus will increase

d. A shortage will develop since quantity demanded is greater than the quantity supplied

e. This country will import 50 units

Answer: d

Domestic producers would make 70 units and the other 50 would be imported. Consumer surplus would get bigger, domestic producer surplus would get smaller, and total surplus would increase by the area $CD$. 
13. The product above is subject to a per unit excise tax. Identify the consumer surplus before the tax, the consumer surplus after the tax, and the total tax revenue that goes to the government.

<table>
<thead>
<tr>
<th>CS Before Tax</th>
<th>CS After Tax</th>
<th>Tax Revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. ABCD</td>
<td>A</td>
<td>BCEIJ</td>
</tr>
<tr>
<td>b. ABCD</td>
<td>A</td>
<td>BCE</td>
</tr>
<tr>
<td>c. ABCD</td>
<td>AB</td>
<td>EIJ</td>
</tr>
<tr>
<td>d. ABCD</td>
<td>AB</td>
<td>E</td>
</tr>
<tr>
<td>e. IEF</td>
<td>I</td>
<td>BCE</td>
</tr>
</tbody>
</table>

Answer: b
Consumer surplus decreases from ABCD to A when price increases. BCEIJ is the total amount consumers spend after the tax. BCE goes to the government. IJ is revenue for the firms. DF is dead-weight loss (assuming that the tax is not correcting for negative externalities).

14. Assume the demand for a product is relatively inelastic and the supply is relatively elastic. A per unit excise tax will cause
   a. price and quantity to increase
   b. consumers to pay a larger portion of the tax burden
   c. producers to pay a larger portion of the tax burden
   d. consumers and producers to share the tax burden equally
   e. a permanent shortage

Answer: b
The tax revenue that goes to the government is the yellow and orange areas shown below. When the demand is inelastic, consumers pay a larger portion of the tax revenue.

<table>
<thead>
<tr>
<th># of Slices of Pizza</th>
<th>Total Utility</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td>2</td>
<td>14</td>
</tr>
<tr>
<td>3</td>
<td>19</td>
</tr>
<tr>
<td>4</td>
<td>23</td>
</tr>
<tr>
<td>5</td>
<td>25</td>
</tr>
</tbody>
</table>

15. The chart shows the total utility (in utils) a typical consumer receives for eating pizza. Which of the following is correct for this individual?
   a. This person does not experience diminishing marginal utility
   b. The marginal utility of the 4th slice is 4 utils
   c. The marginal utility of the 5th slice is 5 utils
   d. The total utility decreases at a constant rate
   e. This person would eat 5 slices of pizza

Answer: b
Marginal utility is the change in total utility divided by the change in units consumed. This person does experience diminishing marginal returns since the marginal utility is decreasing. We would need to know the marginal cost of each another slice of pizza in order to evaluate answer E.
16. Assume a consumer has maximized her utility by buying two products: cupcakes and cheese. Her marginal utility for the last cupcake is 30. If the price of cupcakes is $3 and the price of cheese is $5, how much is her marginal utility for her last unit of cheese?

a. 10  
b. 30  
c. 50  
d. 100  
e. Not enough information

Answer: c  
[http://www.youtube.com/watch?v=OnVGp2rDkBE](http://www.youtube.com/watch?v=OnVGp2rDkBE)

Utility Maximizing Rule: \( \frac{MU_x}{P_x} = \frac{MU_y}{P_y} \). She maximizes utility when the marginal utility per dollar for the two products are equal. If her marginal utility per dollar for cupcakes is 10 \( (30/3) \) then her marginal utility per dollar for cheese must be 10 \( (50/5) \).

17. Which of the following describes what will happen in the market for tomatoes if a salmonella outbreak is attributed to tainted tomatoes?

a. Supply will decrease and price will increase  
b. Supply will decrease and price will decrease  
c. Demand will decrease and price will increase  
d. Demand will decrease and price will decrease  
e. Supply and demand will both decrease

D, News of Salmonella laden tomatoes will cause the demand for tomatoes to fall. When the demand shifts left the price will fall as well.

18. Which of the following will lead to an increase in the equilibrium price of product “X”? A(n)

a. Increase in consumer incomes of product “X” is an inferior good  
b. Increase in the price of machinery used to produce product “X”  
c. Technological advance in the production of good “X”  
d. Decrease in the price of good “Y” (a substitute for good “X”)  
e. Expectation by consumers that the price of good “X” is going to fall

B, An increase in the price of machinery used to produce good X will cause the supply of good X to decrease. A shift to the left in supply will increase the price.
19. The equilibrium price will rise, but the equilibrium quantity may increase, decrease, or stay the same if
a. Demand increases and supply decreases
b. Demand increases and supply increases
c. Demand decreases and supply increases
d. Demand decreases and supply decreases
e. Demand increases and supply does not change

A, After drawing the double shift, you will see that a demand increase and a supply decrease together will cause the equilibrium price to rise.

20. An increase in the number of buyers and a technological advance will cause
a. Demand to increase and supply to increase
b. Demand to increase and supply to decrease
c. Demand to decrease and supply to increase
d. Demand to decrease and supply to decrease
e. No change in demand and an increase in supply

A, An increase in the number of buyers will cause demand to increase. An tech advancement in production cause an increase in supply.