1. Trade unions in the steel industry get an agreement for annual wage increases. At the same time, coal, an input to steel, is made more expensive by a strike of coal workers. Draw on a graph and explain in words what happens to the market equilibrium price and quantity of steel once these two changes have happened.

2. The price of car oil filters rises. Explain in words and show on a graph what happens in the market for car oil.

3. UMass raises its tuition so the income students can spend on pizza falls. Show on a graph and explain in words what happens in the pizza market.

4. You wake up this morning to read in the Collegian that sugar helps the brain recover faster from study exhaustion. Show on a graph and explain in words what happens in the market for sugar.

5. Draw and explain in words the shape of the following demand curves: perfectly elastic, perfectly inelastic and unitary elastic.

6. Demonstrate on a graph and explain in words (making reference to the elasticity formula) why elasticity of demand varies along a straight line demand curve.

7. Demonstrate on a graph and explain in words the deadweight loss that would occur if construction of new rental units was prohibited in Amherst. Be sure to explain where the point of efficiency is and why after the prohibition the new output level would be inefficient.

8. The cross elasticity of demand for two goods is greater than zero. Explain what the relationship is between these two goods and draw on a graph what
happens to in the market for the first good if the price of the second good falls.

9. Draw on a graph and explain in words the concept of Utilitarian Fairness. What is the implication of Utilitarian Fairness for income redistribution? Who should be the beneficiaries of redistribution and why?

10. Demonstrate on a graph and explain in words the incidence of a tax on buyers, then do the same for a tax on sellers. Draw these graphs with a demand curve with a low elasticity of demand. Then draw either the seller or the buyer tax case with a very elastic demand curve and explain the difference between the low elasticity and the high elasticity case with reference to the difference between the pre-tax and post-tax equilibrium price and quantity. Explain how this tells us how the incidence of the tax is divided between sellers and buyers.

Multiple choice review questions

1) Demands differ from wants because
   A) demands are unlimited, whereas wants are limited by income.
   B) wants require a plan to acquire a good but demands require no such plan.
   C) wants imply a decision about which demands to satisfy, while demands involve no specific plan to acquire the good.
   D) demands reflect a decision about which wants to satisfy and a plan to buy the good, while wants are unlimited and involve no specific plan to acquire the good.
   Answer: D

2) The "law of demand" states that changes in
   A) demand are related directly to changes in supply.
   B) the quantity demanded of a good are not related to changes in the quantity supplied.
   C) the quantity demanded of a good are inversely related to changes in its price.
   D) demand are inversely related to changes in supply.
   Answer: C

3) The law of demand states that, other things remaining the same, the higher the price of a good, the
   A) smaller is the demand for the good.
   B) larger is the demand for the good.
   C) smaller is the quantity of the good demanded.
   D) larger is the quantity of the good demanded.
   Answer: C
4) Which of the following is consistent with the law of demand?
A) An increase in the price of a DVD causes an increase in the quantity of DVDs demanded.
B) An increase in the price of a soda causes a decrease in the quantity of soda demanded.
C) A decrease in the price of a gallon of milk causes a decrease in the quantity of milk demanded.
D) A decrease in the price of juice causes no change in the quantity of juice demanded.
Answer: B

5) As the relative price of a good falls, the substitution effect implies that people buy
A) less of that good and more of its substitutes.
B) more of that good and less of its substitutes.
C) less of that good and less of its substitutes.
D) more of that good and more of its substitutes.
Answer: B

6) In the market for magazines, the "income effect" means that
A) magazines are usually purchased by people with higher than average incomes.
B) a decrease in the price of a substitute product like books will make magazine readers feel a little poorer than they were before.
C) an increase in the price of magazines will reduce the total purchasing power of magazine readers, making them able to afford fewer magazines.
D) an increase in the price of magazines will raise the relative price of magazines to books, causing magazine readers to read more books and fewer magazines.
Answer: C

7) Apples are a normal good, so if the price of an apple increases from 50¢ to 60¢, the quantity of apples demanded decrease because of
A) the substitution effect only.
B) the income effect only.
C) a change in income.
D) the substitution and income effects.
Answer: D

8) When the price of a pizza decreases from $14 to $12,
A) the income effect means people buy less pizza.
B) the income effect points out that the total purchasing power of people who buy pizza increases.
C) the income effect means that the demand for pizza will not change.
D) None of the above answers is correct.
Answer: B

9) Which of the following influences people's buying plans and does not shift the demand curve?
A) the price of the good
B) the prices of related goods  
C) income  
D) preferences  
Answer: A

10) The quantity of iPods that people plan to buy this month depends on all of the following EXCEPT the  
A) price of CD players.  
B) price of an iPod.  
C) the technology used to produce an iPod.  
D) price of a music download from iTunes.  
Answer: C

11) People buy more of good 1 when the price of good 2 rises. These goods are  
A) complements.  
B) substitutes.  
C) normal goods.  
D) inferior goods.  
Answer: B

12) Ham and eggs are complements. If the price of ham rises, the demand for eggs will  
A) increase or decrease but the demand curve for ham will not change.  
B) decrease and the demand curve for ham will shift rightward.  
C) not change but there will be a movement along the demand curve for eggs.  
D) decrease and the demand curve for eggs will shift leftward.  
Answer: D

13) What happens to the demand for Xbox games if the price of an Xbox falls?  
A) The demand for XBoxes decreases because the price of a substitute falls.  
B) The demand for XBoxes increases because the price of a complement falls.  
C) The demand for XBoxes decreases because the price of a complement falls.  
D) The demand for XBoxes remains unchanged.  
Answer: B

14) The observation that the demand curve for grape jelly shifts rightward every time the price of peanut butter falls means that grape jelly and peanut butter are  
A) complements.  
B) substitutes.  
C) inferior goods.  
D) normal goods.  
Answer: A

15) A decrease in the expected future price of cars  
A) increases the current quantity demanded of cars, that is, there is a movement downward along the demand curve for cars.  
B) increases the current demand for cars, that is, there is a rightward shift of the demand
C) decreases the current quantity demanded of cars, that is, there is a movement upward along the demand curve for cars.
D) decreases the current demand for cars, that is, there is a leftward shift of the demand curve for cars.
Answer: D

16) If consumers' incomes increase and the demand for bus rides decreases
A) bus rides are a normal good.
B) consumers are behaving irrationally.
C) bus rides are an inferior good.
D) none of the above
Answer: C

17) An unusually warm winter shifts the
A) supply curve of gloves rightward.
B) supply curve of gloves leftward.
C) demand curve for gloves rightward.
D) demand curve for gloves leftward.
Answer: D

18) The price of the steel used to produce car engines increases. How does this price hike affect the demand curve for cars?
A) The demand curve shifts leftward.
B) The demand curve shifts rightward.
C) The demand curve does not shift.
D) There is not enough information to tell how the change shifts the demand curve for cars.
Answer: C

19) If the price of chocolate chip cookies rises, then
A) the demand curve for chocolate chip cookies shifts rightward.
B) the demand curve for chocolate chip cookies shifts leftward.
C) there is a movement downward along the demand curve for chocolate chip cookies.
D) there is a movement upward along the demand curve for chocolate chip cookies.
Answer: D

20) Which of the following would NOT shift the demand curve for turkey?
A) an increase in income
B) a decrease in the price of ham
C) a change in people's preferences for turkey
D) a change in the price of a turkey
Answer: D

21) The quantity of CDs that firms plan to sell this month depends on all of the following EXCEPT the
A) number of producers of CDs.  
B) quantity of CDs that people plan to buy.  
C) wage rate of workers who produce CDs.  
D) price of a CD.  
Answer: B

22) The "law of supply" states that, other things remaining the same, firms produce  
A) more of a good the less it costs to produce it.  
B) less of a good the more it costs to produce it.  
C) more of a good the higher its price.  
D) less of a good as the required resources become scarcer.  
Answer: C

23) Which of the following explains why supply curves slope upward?  
A) prices and income  
B) increasing marginal cost  
C) resources and technology  
D) substitutes in production and complements in production  
Answer: B

24) Which of the following is NOT held constant while moving along a supply curve?  
A) expected future prices  
B) the number of sellers  
C) the price of the good itself  
D) prices of factors of production  
Answer: C

25) Auto workers negotiate a wage increase. How does this wage hike affect the supply of cars?  
A) It decreases the supply.  
B) It increase the supply.  
C) It has no effect.  
D) There is not enough information to tell if the change increases, decreases, or has no effect on the supply of cars  
Answer: A

26) If a producer can use resources to produce either good A or good B, then A and B are  
A) complements in production.  
B) substitutes in production.  
C) substitutes in consumption.  
D) complements in consumption.  
Answer: B

27) A bakery can produce either cakes or cookies. If the price of cookies rises, then  
A) the supply curve of cake shifts leftward.  
B) the supply curve of cake shifts rightward.
C) there is a movement downward along the supply curve of cakes.
D) there is a movement upward along the supply curve of cakes.
Answer: A

28) Which of the following increases the supply of a product?
A) A fall in the price of the product.
B) A smaller number of sellers producing the product.
C) An increase in foreign imports of the product.
D) Higher taxes imposed upon producers of the product.
Answer: C

29) Over the past decade technological improvements that have lowered the cost of producing an automobile have increased
A) both the supply and the demand for automobiles.
B) the supply but not the demand for automobiles.
C) the demand but not the supply of automobiles.
D) neither the supply nor the demand for automobiles.
Answer: B

30) A severe drought has damaged this year's lettuce crop. The initial effect on the lettuce market is a
A) decrease in the demand for lettuce.
B) decrease in the supply of lettuce.
C) decrease in both the demand and supply of lettuce.
D) rightward movement along the demand curve for lettuce.
Answer: B

31) Which of the following results in a movement along the supply curve of spinach but does not shift the supply curve of spinach?
A) Disastrous weather that destroys half of this year's spinach crop.
B) A rise in the price of of spinach.
C) An increase in wages for workers in spinach fields.
D) Great weather that produces a bumper spinach crop this year.
Answer: B

32) As the price of a pound of peanuts falls, the
A) supply of peanuts increases.
B) supply of peanuts decreases.
C) quantity of peanuts supplied increases.
D) quantity of peanuts supplied decreases.
Answer: D

33) Which of the following influences does NOT shift the supply curve?
A) A rise in the wages paid workers who produce the good.
B) The development of new technology.
C) People deciding that they want to buy more of the product.
D) A decrease in the number of suppliers.
Answer: C

34) When a market is in equilibrium,
A) everyone has all they want of the commodity in question.
B) there is no shortage and no surplus at the equilibrium price.
C) the number of buyers is exactly equal to the number of sellers.
D) the supply curve has the same slope as the demand curve.
Answer: B

35) If a market is NOT in equilibrium, then which of the following is likely to occur?
A) The demand curve will shift to bring the market to equilibrium.
B) The supply curve will shift to bring the market to equilibrium.
C) The price will adjust to bring the market to equilibrium.
D) Both A and B are correct.
Answer: C

36) If the price of a video rental is below its equilibrium price, there will be a _______ of video rentals and the price will _______.
A) shortage; rise
B) shortage; fall
C) surplus; rise
D) surplus; fall
Answer: A

37) A shortage causes the
A) demand curve to shift leftward.
B) supply curve to shift rightward.
C) price to fall.
D) price to rise.
Answer: D

<table>
<thead>
<tr>
<th>Price (dollars per pound)</th>
<th>Quantity supplied (pounds)</th>
<th>Quantity demanded (pounds)</th>
</tr>
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<tr>
<td>3</td>
<td>1</td>
<td>7</td>
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<tr>
<td>7</td>
<td>6</td>
<td>1</td>
</tr>
</tbody>
</table>

38) The above table shows the demand schedule and supply schedule for chocolate chip cookies. If the price is $4.00 per pound, there is a
A) shortage of 2 pounds of chocolate chip cookies.
B) shortage of 3 pounds of chocolate chip cookies.  
C) shortage of 5 pounds of chocolate chip cookies.  
D) surplus of 3 pounds of chocolate chip cookies.  
Answer:  B

39) The above table shows the demand schedule and supply schedule for chocolate chip cookies. An increase in income results in an increase in the demand for chocolate cookies by an amount of 3 pounds at every price. What are the new equilibrium quantity and equilibrium price?  
A) 5 pounds, $4.00 per pound  
B) 5 pounds, $6.00 per pound  
C) 5 pounds, $5.00 per pound  
D) 4 pounds, $5.00 per pound  
Answer:  B

40) When the demand for a good decreases, its equilibrium price _______ and equilibrium quantity _______.  
A) falls; decreases  
B) falls; increases  
C) rises; decreases  
D) rises; increases  
Answer:  A

41) In March, the quantity of orange juice sold in the town of Jackson was 3000 cartons and the price $3. In May, the quantity of orange juice sold in the town of Jackson was 3500 cartons and the price was $3.20. This change in the price and quantity sold could have been the result of  
A) the release of a medical study suggesting that consuming orange juice helps prevent cancer.  
B) a reduction in the number of orange juice coupons provided by local markets.  
C) the after effects of a cold winter in Florida that killed half of the orange crop.  
D) the after effects of a warm winter in Florida that increased the orange crop yield by 50 percent.  
Answer:  A

42) Suppose the equilibrium price of bottled water has risen from $1.00 per bottle to $2.00 per bottle and the equilibrium quantity has increased. These changes are a result of a _______ shift of the _______ curve for bottled water.  
A) rightward; demand  
B) rightward; supply  
C) leftward; supply  
D) leftward; demand  
Answer:  A

43) Which of the following raises the equilibrium price and increases the equilibrium quantity of used cars?
A) a fall in income if used cars are an inferior good
B) an increase in the wage rate paid to used car salespeople
C) Neither of the above because the question suggests a violation of the "law of demand".
D) Neither of the above because the question suggests a violation of the "law of supply".
Answer: A

44) Coffee and sugar are complements. If the supply curve of coffee shifts leftward because of poor weather, then there will be
A) an increase in the price of sugar.
B) a decrease in the price of sugar.
C) a leftward shift of the demand curve for coffee.
D) a leftward shift of the supply curve for sugar.
Answer: B

45) Suppose we observe that both the equilibrium price of digital cameras and the equilibrium quantity of digital cameras have increased. Which of the following events could be responsible for this?
A) technological advances in digital camera production
B) consumers' preferences changed in favor of digital cameras
C) the price of film cameras fell
D) workers who make digital cameras received a pay raise
Answer: B

46) There is a technological advance in the production of a good and simultaneously also an increase in the expected future price. Which of the following will happen?
A) The equilibrium price will rise because the supply curve shifts rightward.
B) The equilibrium price falls because the supply curve shifts leftward.
C) The technological improvement shifts the supply curve rightward while the increase in the expected future price shifts the supply curve leftward. The net effect is not known.
D) The demand curve shifts rightward and the supply curve does not shift.
Answer: C

47) If the demand curve for bottled water shifts leftward and the supply curve of bottled water shifts leftward, the equilibrium
A) price of bottled water definitely increases.
B) price of bottled water definitely decreases.
C) quantity of bottled water definitely increases.
D) quantity of bottled water definitely decreases.
Answer: D

48) Elasticity measures the
A) percentage change in a variable.
B) slope of a curve.
C) change in a variable.
D) responsiveness of a variable to a change in another variable.
Answer: D
49) The price elasticity of demand is equal to the ________ in the ________ divided by the ________ in the ________.
A) percentage change; price; percentage change; quantity demanded
B) change; price; change; quantity demanded
C) percentage change; quantity demanded; percentage change; price
D) change; quantity demanded; change; price
Answer: C

50) The price elasticity of demand depends on
A) the units used to measure price and the units used to measure quantity.
B) the units used to measure price but not the units used to measure quantity.
C) the units used to measure quantity but not the units used to measure price.
D) neither the units used to measure price nor the units used to measure quantity.
Answer: D

51) A decrease in the price of eggs from $1.50 to $1.30 per dozen resulted in an increase in egg purchases in two cities. In Philadelphia, daily egg purchases increased from 6000 to 8000 dozens; in nearby Dover, Delaware, daily egg purchases increased from 300 to 400 dozens. The price elasticity of demand is therefore
A) lower in the smaller city as would be expected.
B) greater in the smaller city as would be expected.
C) certainly affected by population differences in different markets.
D) the same in Philadelphia as in Dover.
Answer: D

52) The price elasticity of demand for furniture is estimated at 1.3. This value means a one percent increase in the
A) price of furniture will increase the quantity of furniture demanded by 1.3 percent.
B) price of furniture will decrease the quantity of furniture demanded by 1.3 percent.
C) quantity of furniture demanded will decrease the price of furniture by 1.3 percent.
D) quantity of furniture demanded will increase the price of furniture by 1.3 percent.
Answer: B

53) If a 20 percent increase in the price of a used car results in a 10 percent decrease in the quantity of used cars demanded, then the price elasticity of demand equals
A) 0.5.
B) 1.0.
C) 2.0.
D) 10.0.
Answer: A

54) Using average price and average quantity, calculate the price elasticity of demand if a price rise from $8 to $10 and decreases the quantity demanded from 20 units to 15 units. The price elasticity of demand equals
A) 2.5.
55) Because of an increase in the price of leather, the price of a pair of women's dress shoes increased 12 percent. If the price elasticity of demand for women's dress shoes is 0.85, which of the following will happen?
A) Total expenditure on women's dress shoes decreases.
B) The number of pairs of women's dress shoes demanded decreases by 10.2 percent.
C) Total revenue from the sale of women's dress shoes decreases.
D) none of the above
Answer: B

56) The table above gives the demand schedule for snow peas. The price elasticity of demand between $6.00 and $7.00 per bushel is
A) 1.0.
B) 2.0.
C) 2.6.
D) 5.0.
Answer: C

57) If the quantity demanded changes by a relatively small amount for a given change in price, then demand is
A) perfectly inelastic.
B) perfectly elastic.
C) elastic.
D) inelastic.
Answer: D

58) If the price of salt increases and the quantity demanded does not change, then
A) the price elasticity of demand is equal to zero.
B) demand is perfectly inelastic.
C) the demand curve for salt is horizontal.
D) Both answers A and B are correct.
Answer: D
59) When the price elasticity of demand for a good equals
A) 0, the demand curve is vertical.
B) 0, the demand curve is horizontal.
C) 1, the demand curve is vertical.
D) 1, the demand curve is horizontal.
Answer: A

60) If the demand curve for oranges is a downward sloping straight line, the price elasticity of demand will increase the
A) higher the price of oranges.
B) higher the price of other fruits.
C) higher the income level of consumers.
D) lower the price of oranges.
Answer: A

61) Along a straight-line demand curve, as the price falls the
A) demand becomes more elastic.
B) demand becomes less elastic.
C) elasticity of demand is constant.
D) demand is always unitary elastic.
Answer: B

62) At the midpoint of a downward sloping straight-line demand curve, the demand
A) is elastic.
B) is unit elastic.
C) is inelastic.
D) has an elasticity exactly equal to zero.
Answer: B

63) When demand is ________, a decrease in price ________ total revenue.
A) elastic; decreases
B) inelastic; decreases
C) unit elastic; increases
D) elastic; does not change
Answer: B

64) Demand is elastic when a price ________ results in total revenue ________.
A) rise, decreasing
B) fall, decreasing
C) rise, increasing
D) fall; remaining constant
Answer: A

65) The demand for a good is elastic if
A) an increase in its price results in an increase in total revenue.
B) a decrease in its price results in a decrease in total revenue.
C) an increase in its price results in a decrease in total revenue.
D) the good is a necessity.
Answer: C

66) Producers' total revenue will decrease if
A) income increases and the good is a normal good.
B) the price rises and demand is elastic.
C) the price rises and demand is inelastic.
D) income falls and the good is an inferior good.
Answer: B

67) A local transit authority charges $1 for a bus ride. An economics study suggests that in the price range from $0.50 to $1.50, the elasticity of demand for bus trips is 1.1. To increase its revenue, the transit authority should
A) raise the fare.
B) lower the fare.
C) leave the fare as it is.
Answer: B

68) In 1973 and again in 1979, the Organization of Petroleum Exporting Countries (OPEC) raised the world price of crude oil and increased their revenue as well. Which of the following is a true statement regarding these OPEC price hikes?
A) Their revenue increased because the demand for oil was income inelastic.
B) Their revenue increased because the demand for oil was price inelastic.
C) Their revenue would have increased regardless of income elasticity or price elasticity because oil is an imported product for most nations.
D) Their revenue only increased because oil was already very expensive.
Answer: B

69) A shift of the supply curve of oil raises the price from $70 a barrel to $80 a barrel and reduces the quantity demanded from 40 million to 38 million barrels a day. You can conclude that the
A) demand for oil is elastic.
B) demand for oil is inelastic.
C) supply of oil is elastic.
D) supply of oil is inelastic.
Answer: B

70) Total revenue for skis is at a maximum when the price elasticity of demand is
A) between 0 and 1.
B) 1.
C) greater than 1.
D) 0.
Answer: B
71) Sara's Strawberry Market maximizes its total revenue by selling strawberries for $1.25 a basket. At a price of $1.25, you predict that ________
   A) the demand for strawberries is inelastic
   B) Sara's sells most of the strawberries that she grows
   C) the demand for strawberries is elastic
   D) the demand for strawberries is unit elastic
   Answer: D

72) Which goods have more elastic demands?
   A) goods with many substitutes
   B) goods which are necessities
   C) goods with few substitutes
   D) goods whose purchase represents a small percentage of income
   Answer: A

73) For many goods, the price elasticity of demand increases over time because
   A) people's incomes tend to increase over time.
   B) inflation increases all prices and incomes over time.
   C) the ability to find substitutes for a good whose price has risen increases over time.
   D) None of the above answers is correct.
   Answer: C

74) The demand for Honda Accords is probably
   A) inelastic but more elastic than the demand for automobiles.
   B) elastic and more elastic than the demand for automobiles.
   C) inelastic and less elastic than the demand for automobiles.
   D) elastic but less elastic than the demand for automobiles.
   Answer: B

75) The price elasticity of demand depends on the
   A) proportion of consumers' budgets spent on the good.
   B) number of available substitutes.
   C) extent to which the commodity is a luxury.
   D) all of the above
   Answer: D

76) Which of the following items will have the largest price elasticity of demand?
   A) food
   B) fruit
   C) oranges
   D) oranges from a Wal-Mart SuperCenter
   Answer: D

77) Toothpaste and toothbrushes are complements, so the ________ elasticity of demand is ________.
   A) cross; positive
B) income; negative
C) cross; negative
D) income; positive
Answer: C

78) If goods are complements, definitely their
A) cross elasticities are positive.
B) income elasticities are positive.
C) income elasticities are negative.
D) cross elasticities are negative.
Answer: D

79) You are the new vice president in charge of advertising at Taco Bell. In your
upcoming advertising campaign, you plan to degrade the fast food competitor whose
product is the closest substitute for Taco Bell's tacos. That would be the fast food chain
whose cross elasticity of demand with your tacos is equal to
A) negative 2.11.
B) negative 1.75.
C) positive 1.55.
D) positive 1.00.
Answer: C

80) Microsoft raises the price of its Office software by 10 percent. As a result, the
quantity of personal computers demanded at the current price decreases by 5 percent.
What is the cross elasticity of demand for personal computers with respect to the price of
Microsoft Office software?
A) -2.0
B) -0.5
C) 0.5
D) 2.0
Answer: B

81) If a price hike of 5 percent increases the quantity demanded of another good by 2
percent, the goods must be _________ and the cross elasticity of demand equals
________.
A) substitutes; 0.40
B) substitutes; 2.5
C) complements; 0.40
D) complements; 2.5
Answer: A

82) A normal good is defined as a good for which the demand curve
A) shifts leftward as income increases.
B) shifts rightward as income increases.
C) slopes downward to the right.
D) is perfectly price elastic.
83) For Product $X$, the income elasticity of demand is -2.56. Which of the following is therefore true?
A) Product $X$ is a necessity.
B) Product $X$ is a luxury.
C) Product $X$ is an inferior good.
D) Product $X$ is a normal good.
Answer: C

84) Deb's income has just risen from $950 per week to $1,050 per week. As a result, she decides to increase the number of movies she attends each month by 5 percent. Her demand for movies is
A) represented by a vertical line.
B) represented by a horizontal line.
C) income elastic.
D) income inelastic.
Answer: D

85) On most days the price of a rose is $1 and 80 roses are purchased. On Valentine's Day the demand increases so that the price of a rose rises to $2 and 320 roses are purchased. Therefore, the price elasticity of
A) demand for roses is about 1.8.
B) demand for roses is about 0.55.
C) supply of roses is about 1.8.
D) supply of roses is about 0.55.
Answer: C

86) On December 10 the price of a Christmas tree is $50 and 100 trees are purchased. On December 20 the demand for Christmas trees decreases so that the price falls to $30 and 20 trees are purchased. From this set of facts, the
A) demand for Christmas trees is price inelastic.
B) demand for Christmas trees is price elastic.
C) supply of Christmas trees is inelastic.
D) supply of Christmas trees is elastic.
Answer: D

87) If the supply curve is vertical then supply is
A) relatively elastic.
B) perfectly elastic.
C) perfectly inelastic.
D) relatively inelastic.
Answer: C

88) When the price of milk goes up as a result of a rightward shift of the demand curve for milk, the total revenue collected by milk producers will
A) increase only if milk is inelastic in supply.
B) decrease only if milk is elastic in supply.
C) remain constant only if milk has a unitary price elasticity of supply.
D) none of the above
Answer: D

89) Goods and services that can be produced by using commonly available resources that could be allocated to a wide variety of alternative tasks have a supply that is
A) elastic.
B) inelastic.
C) unit elastic.
D) perfectly inelastic.
Answer: A

90) When the price of a CD is $13 per CD, 39,000,000 CDs per year are supplied. When the price is $15 per CD, 41,000,000 CDs per year are supplied. What is the elasticity of supply for CDs?
A) 2.86
B) 0.35
C) 0.14
D) 0.05
Answer: B

91) The value of one more unit of a good or service is the
A) marginal benefit.
B) minimum price that people are willing to pay for another unit of the good or service.
C) marginal cost.
D) opportunity cost of producing one more unit of a good or service.
Answer: A

92) All of the following statements about marginal benefit are correct EXCEPT the marginal benefit of a good
A) is the benefit a person receives from consuming one more unit of the good or service.
B) is measured as the maximum amount that a person is willing to pay for one more unit of the good.
C) is equal to zero when resource use is efficient.
D) decreases as the quantity consumed of the good increases.
Answer: C

93) Jane is willing to pay $50 for a pair of shoes. The actual price of the shoes is $30. Her marginal benefit is
A) $50.
B) $30.
C) $20.
D) $80.
Answer: A
94) Sam's demand curve for pizza
A) lies above her marginal benefit curve for pizza.
B) lies below her marginal benefit curve for pizza.
C) is the same as her marginal benefit curve for pizza.
D) has one point in common with her marginal benefit curve for pizza.
Answer: C

95) A market demand curve measures
A) how much a consumer is willing to pay for an additional unit of the good.
B) the marginal social benefit of an additional unit of the good.
C) the marginal social cost of an additional unit of the good.
D) Both answers A and B are correct.
Answer: D

96) A market demand curve is constructed by
A) a horizontal summation of each individual demand curve.
B) averaging each individual demand curve.
C) dividing one individual demand curve by the number of consumers in the market.
D) a vertical summation of each individual demand curve.
Answer: A

97) Consumer surplus is the ________ summed over the quantity bought.
A) marginal social benefit minus the marginal social cost
B) number of dollars' worth of other goods and services forgone to obtain one more unit of a good or service
C) value of a good or service minus the price paid for the good or service
D) value of a good or service plus the price paid for the good or service
Answer: C

98) Consider the market for hot dogs. As long as the marginal benefit of consuming hot dogs is greater than the price of hot dogs,
A) people receive consumer surplus from eating hot dogs.
B) the price of hot dogs will rise.
C) the value of hot dogs will rise.
D) there is no decreasing marginal benefit of eating hot dogs.
Answer: A

99) Nick can purchase each milkshake for $2. For the first milkshake purchased Nick is willing to pay $4, for the second milkshake $3, for the third milkshake $2 and for the fourth milkshake $1. What is the value of Nick's consumer surplus for the milkshakes he buys?
A) $2
B) $9
C) $3
D) $10
100) Jane is willing to pay $4 for the first cup of coffee a day, $2.50 for the second cup, and $1 for the third cup, after which she won't buy any coffee. The price of a cup of coffee is $2.40. How many cups of coffee per day will Jane buy?
A) 1
B) 2
C) 3
D) None
Answer: B

101) Consider a market that has linear supply and demand curves, and is in equilibrium. The area above the price line and below the demand curve is
A) consumer surplus.
B) producer surplus.
C) marginal cost.
D) marginal benefit.
Answer: A

102) Four people each have a different willingness to pay for one unit of a good: George will pay $15, Glen will pay $12, Tom will pay $10, and Peter will pay $8. If price is equal to $9 per unit then the quantity demanded in the market will be ________ and the consumer surplus for this unit will be ________.
A) 3; $10
B) 3; $37
C) 3; $36
D) 4; $8
Answer: A
103) In the above figure, if the price is $2, then the total consumer surplus is 
A) triangle abc.  
B) triangle cef.  
C) trapezoid adec.  
D) trapezoid bdfc.  
Answer: A

104) Currently tire producers must receive a price of $50 per tire to produce 5000 tires. If the supply curve of tires is upward sloping, then to produce one additional tire, tire producers will need to receive a price of 
A) $50.  
B) less than $50.  
C) more than $50.  
D) $0.  
Answer: C

105) Producer surplus is the ________ summed over the quantity sold.  
A) value of a good minus the price received for it  
B) price received for a good minus the value of the good  
C) price received for a good minus its marginal cost  
D) marginal cost of making a good minus the price received for it  
Answer: C

106) In the market for CDs, the producer surplus will decrease if ________.  
A) the supply of CDs increases  
B) the price of a CD decreases  
C) the marginal cost of a CD decreases
D) the price of a CD increases
Answer: B

107) Suppose there are four firms that are each willing to sell one unit of a good. Each firm has a different minimum price that they are willing to sell for: Firm A $6, Firm B $7, Firm C $10, and Firm D $12. If the market price is $11 then the total producer surplus is
A) $10.
B) $11.
C) $33
D) $9.
Answer: A

108) A market is allocatively efficient if
A) the sum of the consumer surplus and the producer surplus has been maximized.
B) consumer surplus has been maximized.
C) producer surplus has been maximized.
D) profit has been maximized.
Answer: A

109) Suppose a country produces only bikes and clothing. The country achieves an efficient allocation of resources when
A) it can't produce any more bikes unless it gives up clothing.
B) it produces equal amount of bikes and clothes.
C) the marginal social benefit of producing a bike equals the marginal social cost of producing a bike.
D) the prices charged for the goods are as low as possible.
Answer: C

110) When 2,000 hamburgers per day are produced, the marginal social benefit is $1.50 and the marginal social cost is $1.00. And when 7,500 hamburgers per day are produced, the marginal social benefit is $1.00 and the marginal social cost is $1.50. The efficient production quantity of hamburgers is ________ a day.
A) more than 7,500
B) 7,500
C) between 2,000 and 7,500
D) 2,000
Answer: C

111) When a market is in equilibrium, the total amount of consumer surplus must be ________ the total amount of producer surplus.
A) larger than
B) equal to
C) less than
D) None of the above answers are correct.
Answer: D
112) At the efficient level of production, ________.
A) producer surplus must be greater than consumer surplus
B) consumer surplus must be greater than producer surplus
C) there is no deadweight loss
D) the market price is greater than the monopoly price
Answer: C

113) A public good can be consumed by
A) only one person who does not have to pay for it.
B) only one person who has to pay for it.
C) everyone simultaneously, as long as they pay for it.
D) everyone simultaneously, even if they do not pay for it.
Answer: D

114) Among the sources of economic inefficiency are all of the following EXCEPT
A) price regulations
B) rapid technological change
C) monopoly
D) taxes and subsidies
Answer: B

115) Which of the following can prevent markets from reaching efficiency?
I. decreasing marginal benefit
II. taxes
III. quantity regulations that limit the quantity that may be produced
A) I and II
B) I and III
C) II and III
D) I, II and III
Answer: C

116) A cost borne not by the producer but by other people is called ________ cost.
A) an unregulated
B) an external
C) a consumer
D) a non-production
Answer: B

117) If there is an external cost from making paper, an unregulated competitive market produces
A) less than the efficient quantity.
B) the efficient quantity.
C) more than the efficient quantity.
D) a quantity that could be greater than, the same as, or less than the efficient amount.
Answer: C
118) If the government subsidizes the production of a good, 
A) an efficient outcome for producers occurs. 
B) overproduction relative to the efficient quantity occurs. 
C) a deadweight loss is created. 
D) Both answers B and C are correct. 
Answer:  D

119) Deadweight loss can be the result of 
A) overproduction, but not underproduction. 
B) underproduction, but not overproduction. 
C) both overproduction and underproduction. 
D) neither overproduction, nor underproduction. 
Answer:  C

<table>
<thead>
<tr>
<th>Price (dollars per umbrella)</th>
<th>Quantity demanded</th>
<th>Quantity supplied</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>90</td>
<td>0</td>
</tr>
<tr>
<td>10</td>
<td>80</td>
<td>0</td>
</tr>
<tr>
<td>20</td>
<td>40</td>
<td>40</td>
</tr>
<tr>
<td>30</td>
<td>20</td>
<td>80</td>
</tr>
<tr>
<td>40</td>
<td>0</td>
<td>120</td>
</tr>
</tbody>
</table>

120) In the table above, if there are 80 umbrellas produced, the deadweight loss from the 80th umbrella is 
A) $10. 
B) $20. 
C) $30. 
D) $40. 
Answer:  B
121) In the figure above, if the quantity is restricted to 2, then the deadweight loss in this market equals
A) $b + g$.
B) $c + d$.
C) $e + k$.
D) $h + i$.
Answer: A

122) Which of the following correctly defines utilitarianism?
A) Cost will increase if production increases.
B) The difference between what a consumer is willing to pay and what actually has to be paid.
C) Society should strive to achieve the greatest good for the greatest number.
D) Equality will not result in efficient outcomes.
Answer: C

123) Adam makes $25,000 per year and Bob makes $45,000 a year, and they both have the same marginal benefit curve. According to the utilitarian view, if a dollar is transferred from Bob to Adam, then
A) the change in Adam's marginal benefit plus the change in Bob's marginal benefit is negative.
B) Adam's marginal benefit increases by more than Bob's marginal benefit decreases.
C) the change in Adam's marginal benefit plus the change in Bob's marginal benefit equals zero.
D) Adam's marginal benefit decreases by more than Bob's marginal benefit increases.
Answer: B

124) One problem with the utilitarian principle is that it ignores
A) increasing marginal costs.
B) decreasing marginal benefits.
C) the costs of making income transfers.
D) poor people.
Answer: C

125) A modified version of utilitarianism proposed by John Rawls states that
A) the distribution of the economic pie is fair if the rules are fair.
B) the distribution of the economic pie is fair if it achieves the greatest happiness for the greatest number of people.
C) the fair distribution of the economic pie is the one that makes the poorest person as well off as possible.
D) goods may be transferred from one person to another only by voluntary exchange.
Answer: C

126) The symmetry principle states that
A) the poorest person must be made as well off as possible.
B) income should be transferred from the rich to the poor up to the point of complete equality.
C) resources should be common property.
D) people in similar situations must be treated similarly.
Answer: D

127) Which of the following is inconsistent with Robert Nozick's view of fairness as expressed in his book *Anarchy, State, and Utopia*?
A) Everything that is valuable must be owned by individuals and that the state must ensure that theft is prevented.
B) The only legitimate way a person can acquire property is to buy it.
C) The requirement that all people should have equal outcomes.
D) None of the above answers is correct because all the answers express thoughts consistent with Nozick's view.
Answer: C

128) A price ________ is a regulated ________ that must be set below the equilibrium price to have an effect.
A) floor; price
B) floor; quantity
C) ceiling; price
D) ceiling; quantity
Answer: C

129) A rent ceiling set above the equilibrium rent
A) restricts the quantity demanded but not the quantity supplied.
B) restricts the quantity supplied but not the quantity demanded.
C) restricts both the quantity demanded and the quantity supplied.
D) has no effect.
130) Suppose the government imposes a price ceiling on gasoline that is less than the equilibrium price. As a result,
A) the price of gasoline rises to the equilibrium price.
B) there is incentive for buyers to undertake search activity.
C) the supply of gasoline will increase and the supply curve will shift rightward.
D) the demand for gasoline will decrease and the demand curve will shift leftward.
Answer: B

131) Price ceilings, such as rent ceilings, set below the equilibrium price
A) increase producer surplus.
B) decrease producer surplus.
C) do not affect producer surplus.
D) might increase or decrease producer surplus.
Answer: B

132) When a rent ceiling is imposed in a housing market, the opportunity cost of housing equals the
A) rent.
B) market equilibrium rent that would prevail in the absence of a rent ceiling.
C) value of the time and resources spent searching plus the rent.
D) consumer surplus.
Answer: C

133) In the figure below, the initial demand curve is $D_0$. There are no rent ceilings nor rent floors. The equilibrium monthly rent is
A) $100 per month.
B) $200 per month.
C) $300 per month.
D) $400 per month.
The price ceiling depicted in the above figure results in
A) consumer surplus increasing from $30 thousand to $34.5 thousand.
B) producer surplus decreasing from $24 thousand to $6 thousand.
C) a deadweight loss of $16 thousand.
D) Both answers A and B are correct.
Answer: D

135) An example of a price floor is a
A) rent control.
B) minimum wage.
C) subsidy.
D) quota.
Answer: B

136) If policy makers believe that the equilibrium wage rate is too low, policy makers can raise wages by legislating a minimum wage, that is, a wage
A) ceiling above the equilibrium wage.
B) ceiling below the equilibrium wage.
C) floor above the equilibrium wage.
D) floor below the equilibrium wage.
Answer: C

137) The government sets a price floor for corn which is above the equilibrium price of corn. As a result, ________.
A) the corn market will be efficient.
B) a deadweight loss will be created.
C) a shortage of corn will be created.
D) None of the above answers is correct.
Answer: B

138) In the above figure, a minimum wage of ________ would result in employment of
A) $W_2; L_1$
B) $W_2; L_2$
C) $W_1; L_1$
D) $W_1; L_2$
Answer: D

139) A sales tax imposed on sellers shifts the supply curve leftward for the taxed good because the
A) tax is paid by the seller to the government and is, therefore, like a cost of production.
B) tax is actually shifted entirely onto the buyer who can afford only a smaller supply.
C) higher price causes entry into the market.
D) tax shifts the demand curve leftward.
Answer: A

140) As long as the supply curve for a good is upward sloping and the demand curve is downward sloping, a sales tax imposed on sellers shifts the supply curve
A) leftward and definitely raises the equilibrium price.
B) leftward and possibly raises the equilibrium price.
C) rightward and possibly increases the equilibrium quantity.
D) rightward and definitely decreases the equilibrium quantity.
Answer: A

141) How a sales tax is divided between buyers and sellers is determined by
A) the government's choice of whom to tax.
B) who the law says must pay the tax.
C) the elasticities of supply and demand.
D) the revenue needs of government.
Answer: C

142) A tax is imposed on the sale of a product. As long as neither the supply nor the demand is perfectly elastic or inelastic,
A) there is no change in the price paid by the consumers.
B) the price paid by the consumers increases by the full amount of the tax.
C) the price paid by the consumers increases by less than the amount of the tax.
D) the price paid by the consumers increases by more than the amount of the tax.
Answer: C
143) In the above figure, the price paid by the buyer before the tax is ________ per compact disc, and the price paid by the buyer after the tax is ________ per compact disc.
A) $20; $20
B) $20; $30
C) $30; $20
D) $30; $30
Answer: B

144) In the above figure, what is the total tax revenue collected by the government?
A) $20 million
B) $40 million
C) $200 million
D) $400 million

Answer: D
145) In the above figure, the deadweight loss due to the tax is
A) $1,000.
B) $2,000.
C) $4,000.
D) $8,000.
Answer: A

146) The supply of oil is more elastic than the demand for oil. If oil is taxed $10 per barrel, how will the tax be divided between the buyers and sellers?
A) The sellers will pay more of the tax than the buyers.
B) The buyers will pay more of the tax than the sellers.
C) The sellers and buyers will split the tax evenly.
D) The sellers will pay the entire tax.
Answer: B

147) The buyers pay the entire sales tax levied on a good when demand is perfectly ________ or supply is perfectly ________.
A) elastic; inelastic
B) elastic; elastic
C) inelastic; inelastic
D) inelastic; elastic
Answer: D

<table>
<thead>
<tr>
<th></th>
<th>Price elasticity of supply</th>
<th>Price elasticity of demand</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hamburgers</td>
<td>1.2</td>
<td>1.8</td>
</tr>
<tr>
<td>French fries</td>
<td>1.7</td>
<td>1.4</td>
</tr>
</tbody>
</table>
You are in the business of producing and selling hamburgers, french fries, pizza, and ice cream. The mayor plans to impose a tax on one of these products. Based on the elasticities in the above table, as a profit-minded business person who seeks to avoid taxes whenever possible, which good would you most prefer to have taxed?

A) hamburgers
B) pizza
C) French fries
D) ice cream

Answer: B

The government of Healthyland imposes a tax on sellers of salt. The tax is $0.10 per pound. With no tax, the price of salt is $0.40 per pound. The demand for salt is perfectly inelastic and the elasticity of supply is 1.5. With the tax, the price of salt paid by buyers in Healthyland is

A) $0.40 per pound.
B) $0.45 per pound.
C) $0.35 per pound.
D) $0.50 per pound.

Answer: D

In the figure above, imposing a tax on the product results in a division in which

A) all of the tax is paid by the buyers.
B) all of the tax is paid by the sellers.
C) the buyers and sellers pay the same amount.
D) neither the buyers nor the sellers pay the tax.

<table>
<thead>
<tr>
<th>Pizza</th>
<th>2.0</th>
<th>1.2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ice cream</td>
<td>1.5</td>
<td>1.6</td>
</tr>
</tbody>
</table>
151) The above figure shows the market for blouses. The government decides to impose the sales tax on sellers, as shown in the figure. Using the figure, how much tax revenue does the government raise?
A) $20,000
B) $40,000
C) $60,000
D) $80,000
Answer: B

152) The above figure shows the market for blouses. The government decides to impose the sales tax on sellers, as shown in the figure. What is the deadweight loss?
A) $10,000
B) $20,000
C) $30,000
D) $40,000
Answer: A

153) The government wants to increase its tax revenue and plans to implement an additional sales tax. The government will raise more tax revenue if it taxes a good with
an ________ rather than a good with an ________.
A) inelastic demand; elastic demand
B) elastic demand; inelastic demand
C) elastic supply; inelastic supply
D) None of the above answers is correct.
Answer: A

154) If buyers of illegal goods are punished but sellers are not, then the price ________ and the equilibrium quantity ________.
A) rises; increases
B) rises; decreases
C) falls; increases
D) falls; decreases
Answer: D

155) Outlawing the sale of a good shifts the supply curve
A) leftward and lowers the price.
B) leftward and raises the price.
C) rightward and lowers the price.
D) rightward and raises the price.
Answer: B

156) Compared to the situation in which a good is legal, making the good illegal and imposing ________ results in less being sold.
A) a much higher fine on sellers than on buyers
B) a much higher fine on buyers than on sellers
C) any fine on either the buyer or the seller
D) all of the above
Answer: D
157) Suppose the government has declared beer to be an illegal substance and imposes a fine on any person caught selling a beer. Buying beer, however, remains legal. Using the above figure, in which CBL is the cost of breaking the law, what is the equilibrium price and quantity with this new law in effect?

A) $5 per quart and 300 quarts of beer
B) $3 per quart and 500 quarts of beer
C) $3 per quart and 100 quarts of beer
D) $1 per quart and 300 quarts of beer

Answer: A