ECON 1021A-002/004
EXAMPLE MIDTERM 1, FALL 2014 (E. RIVERS)

This was Midterm 1 from Fall 2012. That term, Midterm 1 covered topics from Ch. 2-6. The coverage by chapter was as follows:

Questions 1-11 (Ch. 2)
Questions 12-23 (Ch. 3)
Questions 24-34 (Ch. 4)
Questions 35-42 (Ch. 5)
Questions 43-50 (Ch. 6)
**There is an answer key included on the last page of the document.

This term, Midterm 1 will cover Chapters 1-5. The number of questions per chapter may also be different than this example. This example midterm is only meant to give you an idea of the types of questions that might appear on your exam. You should NOT limit your studies to these topics. Your midterm can cover any topics we have discussed in class or tutorial this term. If you need clarification as to what has been covered, please refer to the Reading List document under Resources.

NAME _____

DEPARTMENT OF ECONOMICS
WESTERN UNIVERSITY

E. Rivers **ECONOMICS 1021A-004** **October 13, 2012**

MIDTERM #1

INSTRUCTIONS:

1. You will have **2 hours** to complete the exam.

2. Check that your examination contains 19 pages.

3. Use a **BLACK PENCIL** to complete your Scantron Form.

    i. Print your **NAME** and complete your **SIGNATURE**

    ii. Enter your **STUDENT NUMBER**

    iii. Enter your **SECTION NUMBER** – 004

    iv. Ensure that the **VERSION CODE** on your question packet matches the version code on your Scantron Form.

    In order to get credit for a question, you must record the correct answer on your Scantron Form. No credit will be given for answers recorded in your question packet.

4. You may have pencils, erasers, your student card, and a *non-graphing, non-programmable* calculator at your desk. All other items must be left in your bag at the front of the examination room.

5. Please ensure that all electronic devices (cell phones, laptops, etc.) are turned off before storing them in your bag at the front of the examination room.

6. There are no washroom breaks allowed during the test.

7. **WHEN YOU HAVE FINISHED, PLEASE HAND IN ALL EXAM MATERIALS (YOUR SCANTRON FORM, YOUR QUESTION PACKET, AND ALL SCRAP PAPER YOU HAVE BEEN PROVIDED).**

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

Use the figure below to answer the following question.

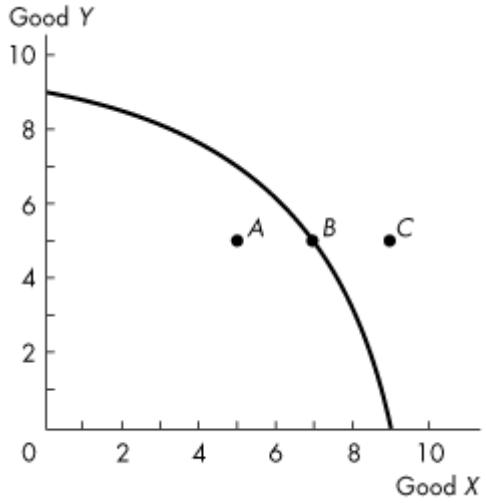

Figure 1

1) Refer to the production possibilities frontier in Figure 1, which one of the following is true about point *C*?
   A) It is attainable only if we consume less of good *X*.
   B) It is attainable only if we consume more of good *Y*.
   C) It is unattainable.
   D) It is attainable only if we consume more of good *X*.
   E) It is attainable only if we consume less of good *Y*.

2) A medical clinic has 10 workers. Each worker can produce a maximum of either 2 units of medical services or 5 units of secretarial services a day. One day, the firm decides it would like to produce 10 units of medical services and 30 units of secretarial services. This output level is
   A) inefficient.
   B) costless.
   C) unattainable.
   D) efficient.
   E) is attainable if the firm reduces the number of its workers.

3) If additional units of any good could be produced at a *constant* opportunity cost, the production possibilities frontier would be
A) negatively sloped.
B) bowed inward.
C) linear.
D) bowed outward.
E) positively sloped.

Use the figure below to answer the following question.

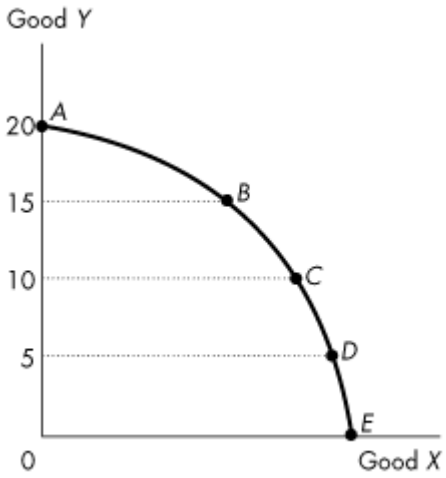

Figure 2

4) Refer to the production possibilities frontier in Figure 2. The opportunity cost of Y when moving from *C* to *B* will be
A) less than moving from *D* to *C* but greater than moving from *B* to *A*.
B) greater than moving either from *D* to *C* or from *B* to *A*.
C) the same as moving from *D* to *C* or moving from *B* to *A*.
D) greater than moving from *D* to *C* but less than moving from *B* to *A*.
E) neither greater than moving from *D* to *C* nor moving from *B* to *A*.

Use the figure below to answer the following question.

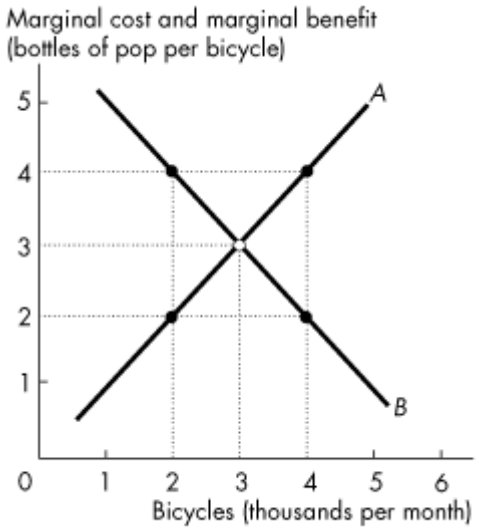

Figure 3

5) In Figure 3, when 4,000 bicycles are produced each month
A) more bicycles must be produced to reach the efficient level of output.
B) fewer bicycles must be produced to reach the efficient level of output.
C) the marginal benefit from another bicycle is greater than the marginal cost of another bicycle.
D) the economy is very efficient at this level of production of bicycles.
E) both A and C.

6) Consider a production possibilities frontier with corn production measured on the vertical axis and car production measured on the horizontal axis. Unusually good weather for growing corn shifts _____.
A) the horizontal intercept of the *PPF* rightward but does not shift the vertical intercept of the *PPF*
B) the vertical intercept of the *PPF* downward and the horizontal intercept of the *PPF* leftward
C) neither the horizontal intercept nor the vertical intercept of the *PPF*
D) the horizontal intercept of the *PPF* rightward and the vertical intercept of the *PPF* upward
E) the vertical intercept of the PPF upward but does not shift the horizontal intercept of the PPF

7) Consider a country that has two industries. In the north, they grow wild rice, which requires a lot of rainfall. In the south, they grow wheat, which requires just a moderate amount of rainfall (too much rainfall is bad for wheat production). One year, there is a record rainfall. This will result in
   A) the production possibilities frontier swiveling, with the wild rice intercept decreasing, and the wheat intercept increasing.
   B) a parallel shift outward of the production possibilities frontier.
   C) the production possibilities frontier swiveling, with the wild rice intercept increasing, and the wheat intercept decreasing.
   D) a parallel shift inward of the production possibilities frontier.
   E) none of the above.

8) Individuals *A* and *B* can both produce good *X*. We say that *A* has a comparative advantage in the production of good *X* if
   A) *A* can produce less units of *X* in a given time period than *B*.
   B) *A* can produce more units of *X* in a given time period than *B*.
   C) *A* can produce *X* using newer technology than *B*.
   D) *A* has a higher opportunity cost of producing *X* than *B*.
   E) *A* has a lower opportunity cost of producing *X* than *B*.

Use the information below to answer the following questions.

Fact 1

Agnes can produce either 1 unit of *X* or 1 unit of *Y* in an hour, while Brenda can produce either 2 units of *X* or 4 units of *Y* in an hour.

9) Given Fact 1, the opportunity cost of producing a unit of *X* is
   A) 1 hour for Agnes and 1/2 hour for Brenda.
   B) 1 hour for Agnes and 1/4 hour for Brenda.
   C) 1 unit of *Y* for Agnes and 1/2 unit of *Y* for Brenda.
   D) 1 unit of *Y* for Agnes and 2 units of *Y* for Brenda.
   E) 1 hour for Agnes and 2 hours for Brenda.

10) Complete the following sentence. Given Fact 1,
   A) there will be no gains from trade because Agnes has an absolute advantage.
   B) there will be gains from trade if Agnes specializes in the production of *X* and Brenda in *Y*.
   C) there will be gains from trade, no matter what Brenda and Agnes specialize in, as long as they specialize.
   D) there will be gains from trade only if Agnes specializes in the production of *Y* and Brenda in *X*.
   E) there will be gains from trade only if Agnes becomes faster at producing *X*.

Use the table below to answer the following question.

Table 1
Production for one week by Sheila and Bruce

Sheila		Bruce	
Good *X*	Good *Y*	Good *X*	Good *Y*
8	0	20	0
6	1	15	2
4	2	10	4
2	3	5	6
0	4	0	8

11) Given the information in Table 1, which one of the following is true?
A) Sheila should specialize in good X.
B) Bruce should specialize in good X.
C) The opportunity cost to Bruce of an additional unit of X is 0.4 units of Y.
D) A and B.
E) B and C.

Use the table below to answer the following question.

Table 2

Year	Coffee Price	Tea Price	Cola Price
2010	$1.25	$1.10	$0.80
2011	$1.50	$1.00	$1.00
2012	$1.25	$1.20	$1.00

12) Refer to Table 2. Between 2010 and 2011, the price of coffee relative to the price of tea _____ while the price of coffee relative to the price of cola _____.
A) rose; fell
B) rose; rose
C) fell; rose
D) fell; fell
E) fell; stayed constant

Use the figure below to answer the following question.

Figure 4

13) Point *A* in Figure 4 indicates that
A) $1 is the least that consumers are willing to pay for the 4,000th apple.
B) if the price is $1, consumers will plan to buy 4,000 apples.
C) consumers will only pay $1 for any apple.
D) consumers will not be in equilibrium if the price of an apple is $1.
E) if the price is more than $1, consumers will buy 9,000 apples.

14) The price of good *X* falls and the demand for good *Y* decreases. We can conclude that
A) *X* and *Y* are independent of each other.
B) *X* is an inferior good.
C) *X* and *Y* are substitutes.
D) *X* is a normal good.
E) *X* and *Y* are complements.

15) Which one of the following would lead to an increase in the demand for hamburgers?
A) a rise in the price of French fries, a complement of hamburgers
B) a decrease in consumer income if hamburgers are a normal good
C) a decrease in population size
D) a new fad hamburger diet
E) a news report that hamburgers can cause skin diseases

16) The law of supply tells us that other things remaining the same, as the
A) price of gasoline rises, the quantity of gasoline supplied decreases.
B) cost of producing gasoline increases, the price of gasoline rises.
C) price of gasoline falls, the quantity of gasoline supplied decreases.
D) supply of gasoline increases, the price of gasoline falls.
E) cost of producing gasoline falls, the supply of gasoline will increase.

17) Which one of the following would *not* shift the supply curve of good *X* to the right?
A) an improvement in technology used in the production of *X*
B) a rise in the price of *X*
C) a fall in the price of *Y*, a substitute in production of *X*
D) an increase in the price of *Y*, a complement in production of *X*
E) a fall in the price of the factors of production used in producing *X*

18) Some producers are chatting over a beer. Which one of the following quotations refers to a movement along the supply curve?
A) "Wage increases have forced us to raise our prices."
B) "We anticipate a big increase in demand. Our product price should rise, so we are planning for an increase in output."
C) "Raw material prices have sky-rocketed; we will have to pass the cost on to our customers."
D) "Our new, sophisticated equipment will enable us to undercut our competitors."
E) "New competitors in the industry are causing prices to fall."

Use the table below to answer the following question.

Table 3

Price (dollars per unit)	Quantity Demanded (units)	Quantity Supplied (units)
1	1,100	50
2	800	200
3	600	420
4	500	500
5	420	580
6	350	640
7	320	680
8	300	700

19) Refer to Table 3. At a price of $3 a unit
A) the market is in equilibrium.
B) there is a 180-unit surplus.
C) there is a 180-unit shortage.
D) there is a tendency for the price to rise.
E) C and D.

20) Which one of the following correctly describes how price adjustment eliminates a shortage?
A) As the price falls, the quantity demanded increases and the quantity supplied increases.
B) As the price falls, the quantity demanded increases and the quantity supplied decreases.
C) As the price falls, the quantity demanded decreases and the quantity supplied increases.
D) As the price rises, the quantity demanded decreases and the quantity supplied increases.
E) As the price rises, the quantity demanded increases and the quantity supplied decreases.

21) Suppose we observe a rise in the price of good *A* and an increase in the quantity of good *A* bought and sold. Which one of the following is a likely explanation?
A) The demand for *A* increased.
B) The law of demand is violated.
C) The supply of *A* increased.
D) The supply of *A* decreased.
E) The demand for *A* decreased.

22) If *A* and *B* are complements in production and the price of *A* falls, the supply of *B*
A) does not change.
B) increases and the price of *B* falls.
C) decreases and the price of *B* rises.
D) increases and the price of *B* rises.
E) decreases and the price of *B* falls.

Use the figure below to answer the following question.

Figure 5

23) Refer to Figure 5, which represents the market for beer. The original equilibrium is at 1. If the price of pizza (a complement of beer) rises, what is the new *beer* equilibrium, all else equal?
A) 5 B) 6 C) 3 D) 8 E) 9

24) A price elasticity of demand of 2 means that a 10 percent increase in price will result in a
A) 2 percent decrease in quantity demanded.
B) 20 percent increase in quantity demanded.
C) 2 percent increase in quantity demanded.
D) 20 percent decrease in quantity demanded.
E) 5 percent decrease in quantity demanded.

25) The price of good *A* falls by 10 percent and quantity of good *A* demanded does not change. We conclude that the demand for good *A* is
A) inelastic.
B) unit elastic.
C) elastic.
D) perfectly inelastic.
E) perfectly elastic.

26) Suppose the Lethbridge Computer Company decides to increase the quantity of computers it sells by 6 percent. If the price elasticity of demand is 3.5, the company must
A) lower the price of a computer by 1.714 percent.
B) raise the price of a computer by 1.714 percent.
C) lower the price of a computer by 0.58 percent.
D) raise the price of a computer by 0.21 percent.
E) lower the price of a computer by 0.21 percent.

Use the table below to answer the following question.

Table 4
Demand schedule for good *A*.

Price (dollars per unit)	Quantity demanded (units)
9.00	0
8.00	2,000
7.00	4,000
6.00	6,000
5.00	8,000
4.00	10,000
3.00	12,000
2.00	14,000
1.00	16,000
0	18,000

27) Refer to Table 4. The price elasticity of demand when the price rises from $6 a unit to $7 a unit is
A) 2.0. B) 0.5. C) 1.0. D) 1.3. E) 2.6.

28) For which one of the following is demand likely to be most inelastic?
A) diamonds
B) books
C) potatoes
D) gasoline
E) insulin for a diabetic

Use the figure below to answer the following question.

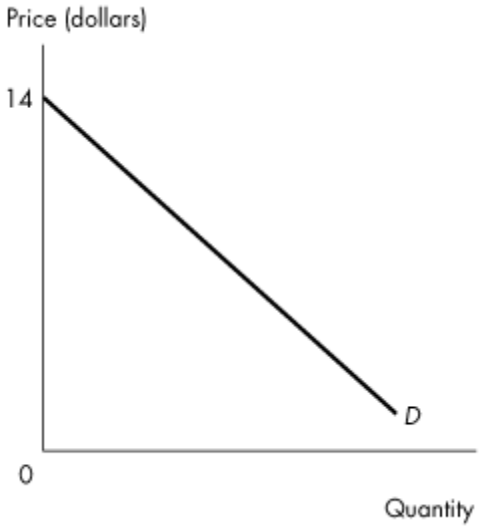

Figure 6

29) Figure 6 illustrates a linear demand curve. At a price of $12, demand is
A) perfectly inelastic.
B) inelastic.
C) unit elastic.
D) elastic.
E) perfectly elastic.

30) Suppose the Nunavut government decides to repair Iqaluit roads. One way to generate sufficient funds for this plan is to increase taxes on gasoline. The government will be able to raise total revenue from gasoline sales only if the demand for gasoline is
A) elastic.
B) unit elastic.
C) equal to the supply of gasoline.
D) inelastic.
E) perfectly elastic.

31) The income elasticity of demand equals the percentage change in _____ other things remaining the same.
A) price divided by the percentage change in quantity demanded
B) price divided by the percentage change in income
C) income divided by the percentage change in quantity demanded
D) quantity demanded divided by the percentage change in income
E) quantity demanded divided by the percentage change in price

32) If a turnip is an inferior good then
A) an increase in income increases the quantity demanded at the current price.
B) turnips taste awful.
C) a large decrease in income decreases the quantity of turnips demanded at the current price by a small amount.
D) a small decrease in income decreases the quantity of turnips demanded at the current price by a large amount.
E) an increase in income decreases the quantity demanded at the current price.

33) A rise in the price of good *A* shifts the
A) supply curve of *B* rightward if the cross elasticity of demand between *A* and *B* is positive.
B) demand curve for *B* rightward if the income elasticity of demand for *B* is positive.
C) demand curve for good *B* rightward if the cross elasticity of demand between *A* and *B* is negative.
D) supply curve of *B* rightward if the cross elasticity of demand between *A* and *B* is negative.
E) demand curve for good *B* rightward if the cross elasticity of demand between *A* and *B* is positive.

34) If the cross elasticity of demand between goods *A* and *B* is positive, then
A) *A* and *B* are complements.
B) *A* and *B* are substitutes.
C) the demands for *A* and *B* are both price inelastic.
D) the demands for *A* and *B* are both price elastic.
E) *A* and *B* are independent goods.

35) If the owner of an apartment building rents only to married couples over the age of 30, the method of resource allocation is
A) majority rule.
B) force.
C) market price.
D) contest.
E) personal characteristics.

36) What is the consumer surplus from the purchase of the 100th unit of a good?
A) the marginal cost of the 100th unit
B) the marginal benefit from the 100th unit
C) the marginal benefit from the 100th unit minus the marginal cost of the 100th unit
D) the marginal benefit from the 100th unit minus the price paid for the 100th unit
E) the opportunity cost of producing the 100th unit

37) Charlene is willing to pay $5.00 for a sandwich. If the price of a sandwich is _____, Charlene _____.
A) $4.00; receives a consumer surplus
B) $6.00; receives a consumer surplus
C) $6.00; receives a marginal cost
D) $4.00; receives a producer surplus
E) $4.00; does not receive any consumer surplus

38) A market supply curve is
A) the horizontal sum of the individual supply curves.
B) is represented by a line with a constant slope.
C) is downward sloping initially, and then upward sloping.
D) downward sloping.
E) the vertical sum of the individual supply curves.

Use the table below to answer the following question.

Table 5

Price (dollars per slice)	Abby's quantity demanded (slices per month)	Barry's quantity demanded (slices per month)
2.50	25	50
3.00	20	40
3.50	15	30
4.00	10	20
4.50	5	10
5.00	0	0

Table 5 shows the demand schedules for pizza for Abby and Barry who are the only buyers in the market.

39) Refer to Table 5.2.4. What is the market value of the 45th slice of pizza?
A) $4.50 B) $4.00 C) $5.00 D) $3.50 E) $2.50

Use the figure below to answer the following questions.

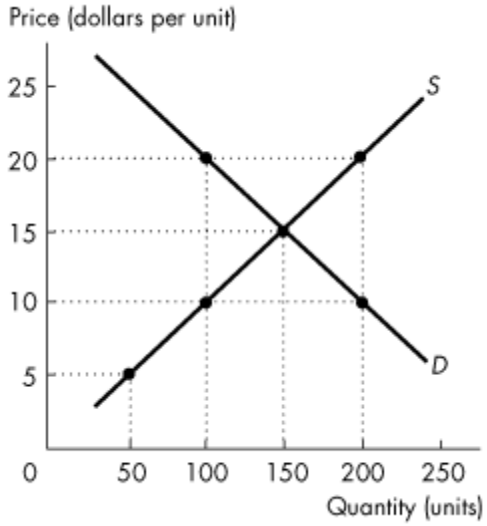

Figure 7

40) Refer to Figure 7. If the quantity produced is 200,
A) the sum of consumer surplus and producer surplus is zero.
B) a deadweight loss exists.
C) deadweight loss is minimized.
D) the sum of consumer surplus and producer surplus is maximized.
E) production is efficient.

41) Refer to Figure 7. If the price is $15 a unit,
A) deadweight loss is zero.
B) production is efficient.
C) marginal social benefit equals marginal social cost.
D) the sum of consumer surplus and producer surplus is maximized.
E) all of the above.

42) When 2,000 hamburgers a day are produced, the marginal social benefit from the 2000th hamburger is $1.50 and its marginal social cost is $1.00. And when 7,500 hamburgers a day are produced, the marginal social benefit from the 7500th hamburger is $1.00 and its marginal social cost is $1.50. The efficient quantity of hamburgers is _____ a day
A) zero
B) less than 2,000
C) 2,000
D) between 2,000 and 7,500
E) more than 7,500

Use the figure below to answer the following question.

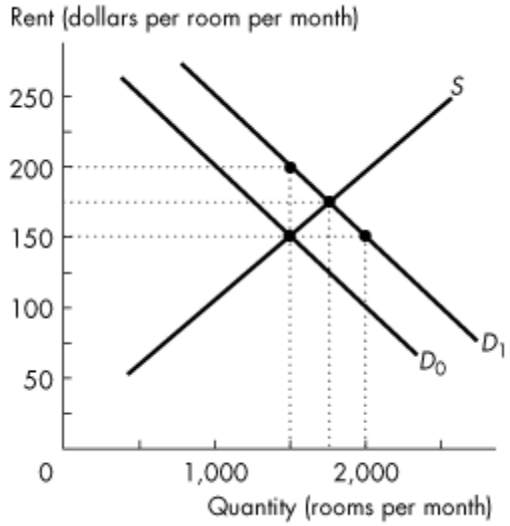

Figure 8

43) Refer to Figure 8. If the demand for rental housing increases and the demand curve shifts rightward from D_0 to D_1, and there is a strictly enforced rent ceiling of $150 per room,
A) the number of rooms rented will increase to 2,000.
B) there is a housing shortage of 500 rooms.
C) the number of rooms rented is 1,500.
D) both B and C.
E) the number of rooms rented decreases to 1,000.

44) If a rent ceiling imposed by the government is greater than the equilibrium rent for housing, then
A) the supply of rental housing will increase.
B) a surplus of housing will occur.
C) the equilibrium rent will prevail as long as all else remains constant.
D) a shortage of housing will occur.
E) the equilibrium rent will rise.

Use the figure below to answer the following question.

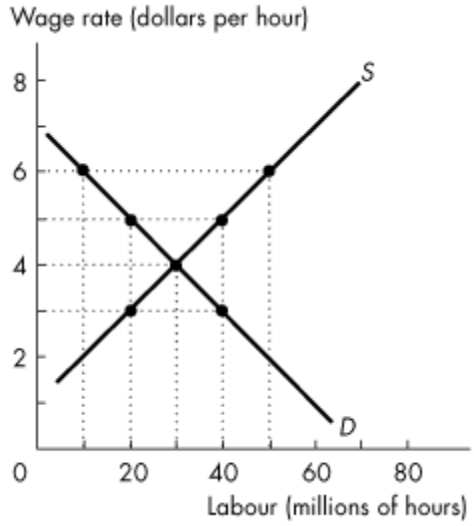

Figure 9

45) Refer to Figure 9. Suppose a $5 per hour minimum wage is in force. What is the lowest wage per hour an unemployed person would be willing to accept?

A) $2 B) $5 C) $4 D) $3 E) $1

Use the figure below to answer the following questions.

Figure 10

46) Refer to Figure 10 showing the market for frisbees before and after a tax is imposed. The tax on each frisbee is
A) $5.60. B) $6.60. C) $1.00. D) $0.60. E) $0.40.

47) Refer to Figure 10 showing the market for frisbees before and after a tax is imposed. On each frisbee, the sellers' share of the tax is
A) $0.60. B) $0.40. C) $1.00. D) $5.60. E) $6.60.

Use the table below to answer the following question.

Table 6

Price (dollars per unit)	Quantity Demanded (units)	Quantity Supplied (units)
3	900	300
4	800	400
5	700	500
6	600	600
7	500	700
8	400	800
9	200	900

48) Refer to Table 6. Suppose a sales tax of $2 a unit is imposed on the good described in the table. The new price paid by consumers is $ _____ and _____ units are sold.
A) $7; 700
B) $6; 400
C) $6.50; 700
D) $6.50; 500
E) $7; 500

Use the table below to answer the following question.

Table 7
The Market for a Prohibited Good.

Price (dollars)	Quantity Demanded (units)	Quantity Supplied (units)
5	700	100
6	600	200
7	500	300
8	400	400
9	300	500
10	200	600
11	100	700

49) Refer to Table 7. If a $2-per-unit cost of breaking the law is imposed on buyers, the new price is _____ and the new equilibrium quantity is _____ units.
A) $8; 400 B) $7; 300 C) $8; 300 D) $8; 200 E) $9; 300

50) Suppose that buying and selling a certain good is made illegal and a penalty is imposed on both buyers and sellers of the illegal good. In the market for this good, the demand curve shifts _____ and the supply curve shifts _____.

A) rightward; rightward
B) leftward; rightward
C) leftward; leftward
D) rightward; leftward
E) None of the above. Neither the demand curve nor the supply curve shift.

Answer Key
Testname: 1021A004MTOCT12

1) C
2) C
3) C
4) D
5) B
6) E
7) C
8) E
9) D
10) B
11) E
12) A
13) B
14) C
15) D
16) C
17) B
18) B
19) E
20) D
21) A
22) C
23) C
24) D
25) D
26) A
27) E
28) E
29) D
30) D
31) D
32) E
33) E
34) B
35) E
36) D
37) A
38) A
39) D
40) B
41) E
42) D
43) D
44) C
45) D
46) C
47) B
48) E
49) B
50) C