

THE UNIVERSITY OF WESTERN ONTARIO
LONDON CANADA

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ECONOMICS 1021A-001

October 15, 2011

MIDTERM 1

INSTRUCTIONS:

1. The examination begins at **1:00 p.m.** and ends at **3:00 p.m.**
2. Check that your examination paper contains 17 pages.
3. Use a **BLACK PENCIL** to complete your Scantron Form.
Print your **NAME** and complete your **SIGNATURE**.
Enter your **STUDENT NUMBER**.
Enter your **SECTION NUMBER**, which is 001.
4. **Please hand in Scantron Form only.**
5. You may use a regular calculator but you may not use a programmable or graphing calculator.
6. Your cell phone must be switched off and left in your bag at the front of the exam room.

NOTE: QUESTIONS ARE PRINTED ON BOTH SIDES OF EACH PAGE

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

- 1) Opportunity cost is
A) the highest-valued alternative that we give up to get something.
B) the value of your favourite activity.
C) the money you spend on food, shelter, and clothing.
D) your value of leisure.
E) the marginal benefit from an activity.
- 2) The fact that some people can afford to live in beautiful homes while others are homeless is an example of an economy facing the _____ question.
A) "how"
B) "when"
C) "what"
D) "for whom"
E) "where"
- 3) During the next hour John can choose one of the following three activities: playing basketball, watching television, or reading a book. The opportunity cost of reading a book
A) depends on how much the book cost when it was purchased.
B) is the value of playing basketball *and* the value of watching television.
C) is the value of watching television if John prefers playing basketball to watching television.
D) is the value of playing basketball if John prefers that to watching television.
E) depends on how much John enjoys the book.
- 4) When asked in an interview what she missed the most because of the time she spent training for the Olympics, a rower, who lived on her own, answered "a normal social life." She also revealed that she had given up a job that paid \$30,000 per year to train fulltime. She received a grant of \$8,000 per year from Sport Canada, but this failed to cover all her training expenses. Her food and rent were \$5,000 per year and training expenses were \$12,000 per year. Aside from the value of a normal social life, what is the annual opportunity cost, expressed in dollars, to this rower of "Going for Gold"?

- A) \$25,000
B) \$39,000
C) \$30,000
D) \$4,000
E) \$34,000

$$\begin{array}{r} \$30,000 \\ + 5,000 \\ + 12,000 \\ \hline 47,000 \\ - 8,000 \\ \hline 39,000 \end{array}$$

$$\begin{array}{r} \$30,000 \\ + 12,000 \\ \hline 42,000 \\ - 8,000 \\ \hline 34,000 \end{array}$$

$$\begin{array}{r} \$30,000 \\ + 12,000 \\ \hline 42,000 \\ - 8,000 \\ \hline 34,000 \end{array}$$

$$\begin{array}{r} 30,000 \\ - \text{normal social life} \\ - 12,000 \\ \hline 18,000 \end{array}$$

- 5) Which one of the following concepts is *not* illustrated by a production possibilities frontier?
- A) scarcity
 - B) monetary exchange
 - C) opportunity cost
 - D) the tradeoff between producing one good versus another
 - E) attainable and unattainable points

- 6) If Sam is producing at a point inside his production possibilities frontier, then he
- A) must be doing the best he can with limited resources.
 - B) has a high opportunity cost of moving from this point.
 - C) can increase production of both goods with zero opportunity cost.
 - D) is unaffected by costs and technology.
 - E) is fully using all his resources and allocating his resources to their best use.

- 7) 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 16 units of medical services and 5 units of secretarial services. This output level is
- A) inefficient.
 - B) efficient.
 - C) attainable and efficient.
 - D) unattainable.
 - E) costless.



Use the figure below to answer the following question.

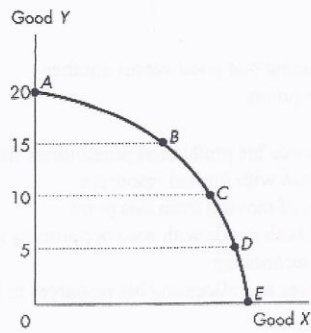


Figure 1

- 8) Refer to the production possibilities frontier in Figure 1. Which one of the following movements requires the largest opportunity cost of increased Y ?
- A) E to D
 - B) C to B
 - C) D to C
 - D) B to A
 - E) The opportunity cost is the same in each case.

Use the table below to answer the following question.

Table 1

The following table gives points on the production possibilities frontier for goods X and Y .

Point	Production of X	Production of Y
A	0	40
B	4	36
C	8	28
D	12	16
E	16	0

- 9) Refer to Table 1. The opportunity cost of increasing the production of X from 8 to 12 units is
- A) 4 units of Y .
 - B) 8 units of Y .
 - C) 4 units of X .
 - D) 16 units of Y .
 - E) 12 units of Y .

10) A production possibilities frontier will shift outward for all of the following reasons *except*

- A) an increase in the stock of capital.
- B) an increase in the labour force.
- C) a technological improvement.
- D) opportunity cost is increasing.
- E) none of the above.

reasons for shift:
Capital accumulation
+ technology change

11) 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 inward 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 outward of the production possibilities frontier.
- E) none of the above.

N ↑
S ↓

12) Individuals *A* and *B* can both produce goods *X* and *Y*. Individual *A* has a comparative advantage in the production of *X* if

- A) the amount by which *A* must reduce production of *Y* is more than the amount by which *B* must reduce production of *Y* to produce an additional unit of *X*.
- B) *A* is faster than *B* at producing *X*.
- C) *B* has superior knowledge about how to produce *X*.
- D) the amount by which *A* must reduce production of *Y* is less than the amount by which *B* must reduce production of *Y* to produce an additional unit of *X*.
- E) *A* has a preference to consume *X*.

Use the information below to answer the following question.

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.

13) Refer to Fact 1. Which one of the following statements is true?

- A) Agnes has a comparative advantage in the production of *Y*.
- B) Brenda has a comparative advantage in the production of *X*.
- C) Brenda will not gain from trade.
- D) Agnes will not gain from trade.
- E) Brenda has an absolute advantage over Agnes in the production of both goods.

Use the figure below to answer the following question.

Table 2

The planets of Vulcan and Romulus each produce goods X and Y . The following table gives points on their production possibilities frontiers.

Vulcan		Romulus	
Good X	Good Y	Good X	Good Y
0	16	0	12
2	12	2	9
4	8	4	6
6	4	6	3
8	0	8	0

14) Refer to Table 2. For Vulcan, the opportunity cost of producing an additional unit of Y is

- A) $2/3$ units of X .
- B) 4 units of X .
- C) $1/2$ units of X .
- D) 3 units of X .
- E) 2 units of X .

Use the table below to answer the following questions.

Table 3

Year	Coffee Price	Tea Price	Cola Price
2007	\$1.25	\$1.10	\$0.80
2008	\$1.50	\$1.00	\$1.00
2009	\$1.25	\$1.20	\$1.00

15) Refer to Table 3. In 2009, the relative price of cola in terms of tea is

- A) 0.83.
- B) 1.25.
- C) 1.20.
- D) 1.00.
- E) unknown without more information.

- 16) Refer to Table 3. Between 2007 and 2008, 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) fell; stayed constant
 - C) fell; fell
 - D) rose; rose
 - E) fell; rose

Use the figure below to answer the following question.

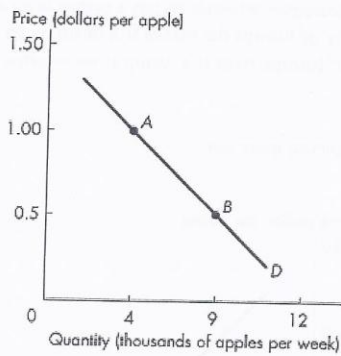


Figure 2

- 17) Point A in Figure 2 indicates that
- A) if the price is \$1, consumers will plan to buy 4,000 apples.
 - B) consumers will not be in equilibrium if the price of an apple is \$1.
 - C) consumers will only pay \$1 for any apple.
 - D) \$1 is the least that consumers are willing to pay for the 4,000th apple.
 - E) if the price is more than \$1, consumers will buy 9,000 apples.
- 18) An increase in the price of ground beef
- A) increases the demand for chicken, a substitute for ground beef.
 - B) increases the quantity demanded of ground beef.
 - C) increases the demand for hamburger buns, a complement of ground beef.
 - D) decreases the quantity demanded of ground beef.
 - E) both A and D.

- 19) A turnip is an inferior good if
- A) turnips violate the law of demand.
 - B) an increase in income increases the demand for turnips.
 - C) an increase in income decreases the demand for turnips.
 - D) an increase in the price of a turnip decreases the quantity of turnips that consumers want to buy.
 - E) turnips are a low quality good.
- 20) Suppose income increases. Choose the correct statement.
- A) The equilibrium price of turnips falls if a turnip is an inferior good.
 - B) The supply of turnips decreases whether or not a turnip is an inferior good.
 - C) The equilibrium quantity of turnips decreases if a turnip is an inferior good.
 - D) The equilibrium price of turnips rises if a turnip is an inferior good.
 - E) Both A and C.

Use the figure below to answer the following question.

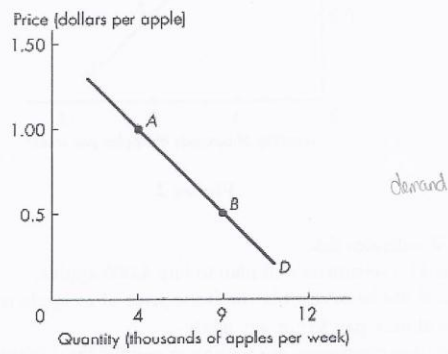


Figure 3

- 21) Which one of the following would result in a movement from point *A* to point *B* in Figure 3?
- A) a rise in the price of oranges
 - B) a fall in the price of apples
 - C) an increase in population size
 - D) public concern about chemicals sprayed on apples
 - E) a rise in the price of bananas

22) Some sales managers are talking shop. Which one of the following quotations refers to a leftward shift of the demand curve?

- A) "We decided to cut our prices, and the increase in our sales has been remarkable."
- B) "Since our competitors raised their prices, our sales have doubled."
- C) "It has been an unusually mild winter; our sales of wool scarves are down from last year."
- D) "The Green movement has sparked an increase in our sales of biodegradable products."
- E) None of the above.

23) Which one of the following will shift the supply curve of good X leftward?

- A) an increase in the cost of machinery used to produce X
- B) a decrease in the wages of workers employed to produce X
- C) a situation where quantity demanded exceeds quantity supplied
- D) a technological improvement in the production of X
- E) a decrease in the cost of capital used to produce X

24) Some producers are chatting over a beer. Which one of the following quotations refers to a leftward shift of the supply curve?

- A) "Wage increases have forced us to raise our prices."
- B) "Our new, sophisticated equipment will enable us to undercut our competitors."
- C) "Raw material prices have sky-rocketed; we will have to pass the cost on to our customers."
- D) "We anticipate a big increase in demand. Our product price should rise, so we are planning for an increase in output."
- E) Both A and C.

Use the table below to answer the following questions.

Table 4

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

25) Refer to Table 4. The equilibrium quantity is 420 units if

- A) the price is fixed at \$4 a unit.
- B) the price is fixed at \$5 a unit.
- C) the price is fixed at \$3 a unit.
- D) both A and C are correct.
- E) none of the above.

26) Refer to Table 4. A surplus occurs if

- A) the price is \$3 a unit.
- B) the price is \$2 a unit.
- C) the price is \$1 a unit.
- D) the price is \$4 a unit.
- E) the price is above \$4 a unit.

Use the figure below to answer the following question.

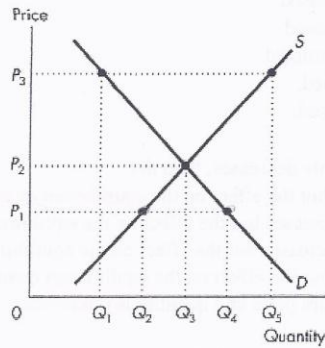


Figure 4

- 27) At price P_3 in Figure 4,
- A) there is a tendency for the price to rise.
 - B) equilibrium quantity is Q_5 .
 - C) there is a shortage in the amount of $Q_5 - Q_1$.
 - D) this market is in equilibrium.
 - E) there is a surplus in the amount of $Q_5 - Q_1$.
- 28) At price P_1 in Figure 4,
- A) a surplus exists.
 - B) producers can sell all they plan to sell.
 - C) consumers can buy all they want.
 - D) producers are unwilling to sell any goods.
 - E) both sides of the market are able to carry out their desired transactions.
- 29) Which one of the following correctly describes how price adjustment eliminates a shortage?
- A) As the price rises, the quantity demanded increases and the quantity supplied decreases.
 - B) As the price falls, the quantity demanded increases and the quantity supplied increases.
 - C) As the price falls, the quantity demanded increases and the quantity supplied decreases.
 - D) As the price falls, the quantity demanded decreases and the quantity supplied increases.
 - E) As the price rises, the quantity demanded decreases and the quantity supplied increases.

30) 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 decreased.
- B) The demand for A increased.
- C) The law of demand is violated.
- D) The supply of A increased.
- E) The supply of A decreased.

31) If demand increases and supply decreases, then the

- A) equilibrium price rises but the effect on the equilibrium quantity is unknown.
- B) equilibrium quantity increases but the effect on the equilibrium price is unknown.
- C) equilibrium quantity decreases but the effect on the equilibrium price is unknown.
- D) equilibrium price falls but the effect on the equilibrium quantity is unknown.
- E) effect on both equilibrium price and quantity is unknown.

32) Which one of the following will definitely lower the equilibrium price?

- A) a decrease in both demand and supply
- B) an increase in demand combined with a decrease in supply
- C) a decrease in demand combined with an increase in supply
- D) an increase in both demand and supply
- E) a decrease in supply combined with an increase in demand



33) If the demand curve for a good is a horizontal line, then the good has

- A) a price elasticity of demand that is likely to fall in the short run.
- B) infinite price elasticity of demand.
- C) a price elasticity of demand that is likely to rise in the short run.
- D) price elasticity of demand equal to zero.
- E) zero income elasticity.



Use the table below to answer the following question.

Table 5
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

- 34) Refer to Table 5. The price elasticity of demand when the price rises from \$6 a unit to \$7 a unit is
- A) 2.6.
 - B) 1.3.
 - C) 2.0.
 - D) 1.0.
 - E) 0.5.
- 35) Suppose your annual income is \$65 000 and your favourite TV Guide magazine costs you \$28 a year. Your demand for the TV Guide magazine is likely to be
- A) perfectly elastic.
 - B) elastic.
 - C) unit elastic.
 - D) elastic -- the same as your demand for all other goods.
 - E) inelastic.
- 36) A good has a price elasticity of demand equal to 2. If new imports lower its price from \$1.20 to \$0.80, the percentage change in quantity demanded will be
- A) a decrease of 80 percent.
 - B) a decrease of 40 percent.
 - C) an increase of 40 percent.
 - D) an increase of 2 percent.
 - E) an increase of 80 percent.

- 37) Fred's income increases from \$840 per week to \$1,160 per week. As a result, he decides to purchase 24 percent more bubble gum each week. The income elasticity of Fred's demand for bubble gum is
- A) 24.
 - B) 0.24.
 - C) 1.33.
 - D) 0.32.
 - E) 0.75.

Use the figure below to answer the following question.

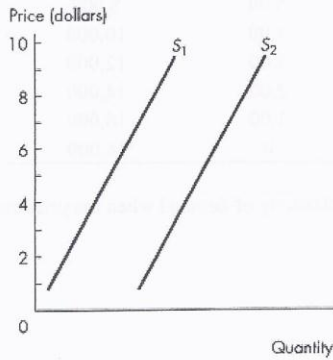


Figure 5

- 38) The two supply curves in Figure 5 are parallel. Between \$7 to \$8,
- A) S_1 is more inelastic than S_2 .
 - B) S_1 is flatter than S_2 .
 - C) S_1 is more elastic than S_2 .
 - D) S_1 and S_2 have the same elasticity.
 - E) S_1 is steeper than S_2 .
- 39) Choose the statement or statements that are correct.
- I. The value of one more unit of a good or service is its marginal benefit.
 - II. Marginal benefit equals the total amount we spend on a good or service.
 - III. Marginal benefit is the maximum amount willingly paid for another unit of a good or service.
- A) II only.
 - B) I and III.
 - C) I, II, and III.
 - D) III only.
 - E) I only.

- 40) Bill and Ted each consume 15 chocolate bars at the current price. If Bill's demand for chocolate bars is more elastic than Ted's demand, then
- A) Bill's willingness to pay for the last chocolate bar is greater than Ted's.
 - B) Ted's consumer surplus is greater than Bill's.
 - C) Bill's consumer surplus is greater than Ted's.
 - D) Ted's willingness to pay for the last chocolate bar is greater than Bill's.
 - E) Bill's consumer surplus equals Ted's.

Use the figure below to answer the following question.

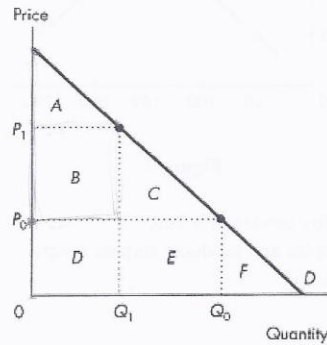


Figure 6

- 41) Refer to Figure 6. If the price rises from P_0 to P_1 , the change in consumer surplus is
- A) A.
 - B) B plus C.
 - C) A plus B plus C plus D plus E.
 - D) A plus B plus C.
 - E) D plus E.

Use the figure below to answer the following question.

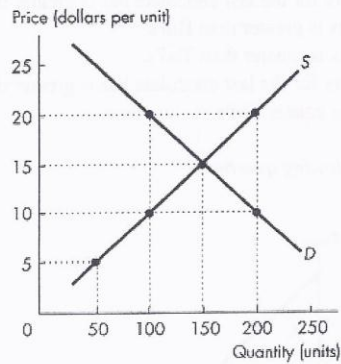


Figure 7

- 42) 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) production is efficient.
 - D) deadweight loss is minimized.
 - E) the sum of consumer surplus and producer surplus is maximized.
- 43) A negative externality results in
- A) overproduction.
 - B) underproduction.
 - C) efficient production.
 - D) zero deadweight loss.
 - E) zero production.
- 44) When a deadweight loss occurs in a market, we can be certain that
- A) the market is a monopoly.
 - B) the entire economy experiences a loss.
 - C) taxes have been imposed in the market.
 - D) there is underproduction in the market.
 - E) both A and C.

Use the figure below to answer the following questions.

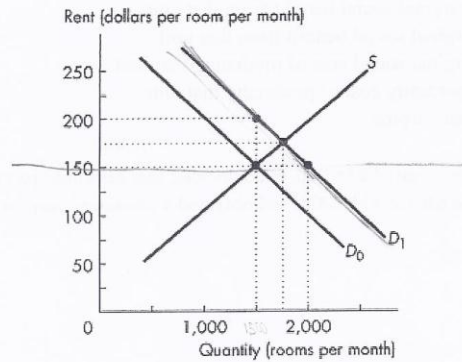


Figure 8

- 45) 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.
- 46) Refer to Figure 8. Suppose the demand for rental housing is shown by demand curve D_1 , and there is a rent ceiling of \$150 per room. What is the highest rent that would be charged in a black market?
- A) \$200 a month.
 - B) \$150 a month.
 - C) \$175 a month.
 - D) \$100 a month.
 - E) cannot be determined from the graph, but we know it is greater than \$200.
- 47) If the cross elasticity of demand between peanut butter and jelly is negative, then
- A) peanut butter and jelly are substitutes.
 - B) a rise in the price of peanut butter has no effect on the equilibrium price of jelly.
 - C) a rise in the price of peanut butter results in a fall in the equilibrium price of jelly.
 - D) a fall in the price of peanut butter results in a fall in the equilibrium price of jelly.
 - E) a rise in the price of peanut butter results in a rise in the equilibrium price of jelly.

- 48) Except for the very last unit of a good sold, the price paid by consumers of that good for an additional unit is
- A) more than the marginal social benefit from that unit.
 - B) less than the marginal social benefit from that unit.
 - C) less than the marginal social cost of producing that unit.
 - D) less than the opportunity cost of producing that unit.
 - E) equal to consumer surplus.
- 49) A new car has a sticker price of \$35,000. Fred decided that he would pay no more than \$32,000 for this car. He bought the car for \$31,000. Fred obtained a consumer surplus of
- A) \$4,000.
 - B) \$1,000.
 - C) \$32,000.
 - D) \$35,000.
 - E) \$3,000.

Use the figure below to answer the following question.

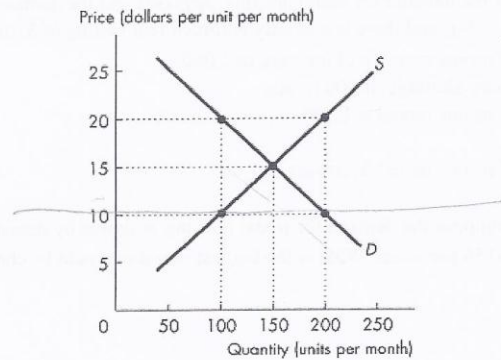


Figure 9

- 50) Refer to Figure 9. If a rigorously enforced price ceiling is set at \$10, then
- A) 200 units will be sold at a price of \$10 each.
 - B) 100 units will be sold at a price of \$10 each.
 - C) 100 units will be sold at a price of \$20 each.
 - D) 150 units will be sold at a price of \$15 each.
 - E) 100 units will be sold at a price of \$15 each.