

**Final Exam : AS/ECON 1000M : May 26 2009**

Name : \_\_\_\_\_

01

If additional units of any good could be produced at a *constant* opportunity cost, the production possibilities frontier would be

- (a)  bowed inward (convex).
- (b)  bowed outward (concave).
- (c)  positively sloped.
- (d)  a negatively-sloped straight line
- (e)  a horizontal line

02

Use the figure below to answer the following question.

**Table 2.4** 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

Refer to Table 2.4. For Romulus, the opportunity cost of producing an additional unit of Y is

- (a)  1/2 unit of X.
- (b)  2/3 unit of X.
- (c)  3/2 unit of Y.
- (d)  2 units of X.
- (e)  3 units of X.

03

Use the figure below to answer the following question.

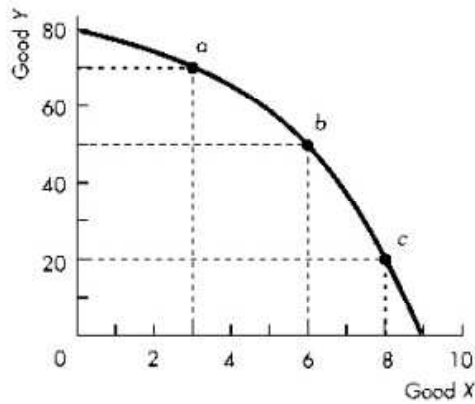


Figure 2.2

As we increase the production of X, we find we must give up larger and larger amounts of Y per unit of X. Select the best statement.

- (a)  Good Y will be more highly regarded by consumers than good X.
- (b)  We must be inside the production possibilities frontier.
- (c)  The production possibilities frontier for X and Y will be a straight line.
- (d)  This illustrates increasing opportunity cost.
- (e)  As a result, we should not specialize in the production of X.

04

Use the figure below to answer the following question.

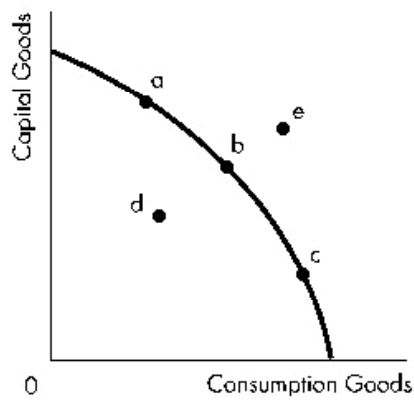


Figure 2.5

Refer to the production possibilities frontier in Figure 2.5. The statement that "Unemployment is a terrible waste of human resources" refers to a point like

- (a)  a.
- (b)  b.
- (c)  c.
- (d)  d.
- (e)  e.

05

Use the information below to answer the following question.

**Fact 2.2**

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.

Given Fact 2.2, what would be the total output of X and Y in an eight-hour day if Agnes and Brenda each specialized in producing the good for which they have a comparative advantage?

- (a)  3 units of X and 5 units of Y
- (b)  8 units of X and 16 units of Y
- (c)  16 units of X and 8 units of Y
- (d)  8 units of X and 32 units of Y
- (e)  24 units of X and 40 units of Y

06

Mexico and Canada produce both oil and apples using labour only. A barrel of oil can be produced with 4 hours of labour in Mexico and 8 hours of labour in Canada. A bushel of apples can be produced with 8 hours of labour in Mexico and 12 hours of labour in Canada. Canada has

- (a)  an absolute advantage in apple production.
- (b)  a comparative advantage in oil production.
- (c)  a comparative advantage in apple production.
- (d)  an absolute advantage in oil production.
- (e)  none of the above.

07

Which of the following statements describes most accurately the effect of current production on future growth?

- (a)  Producing more capital goods, and fewer consumption goods, now, will make us better off now and in the future.
- (b)  Producing more capital goods, and fewer consumption goods, now, will change the slope of our future production possibilities frontier, and will shift it in.
- (c)  Producing more capital goods, and fewer consumption goods, now, will make us worse off now, but will shift out our future production possibilities frontier.
- (d)  Producing more capital goods, but fewer consumption goods, now, is not possible.
- (e)  Producing more capital goods, but fewer consumption goods, now, means that we must have fewer consumption goods in the future.

08

Use the figure below to answer the following question.

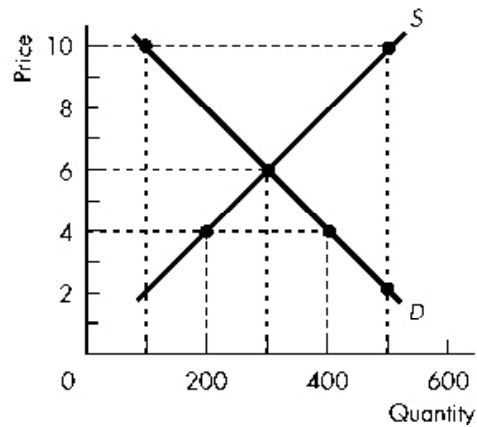


Figure 3.4

Refer to Figure 3.4. When the price is \$10

- (a)  excess demand is generated.
- (b)  consumers will buy only 100 units of output.
- (c)  consumers will buy 500 units of output.
- (d)  consumers will buy nothing.
- (e)  excess demand is zero.

09

Suppose we observe both a decrease in the price of good A and a decrease in the quantity of good A bought and sold. Which one of the following is a likely explanation?

- (a)  The law of demand is violated.
- (b)  The demand for A has decreased.
- (c)  The supply of A has increased.
- (d)  The supply of A has decreased.
- (e)  The demand for A has increased.

10

Turnips are inferior goods if

- (a)  an increase in income decreases the demand for turnips.
- (b)  turnips violate the law of demand.
- (c)  an increase in the price of beets decreases the quantity demanded of turnips.
- (d)  an increase in income increases the demand for turnips.
- (e)  an increase in the price of turnips decreases the quantity of turnips that consumers want to buy.

11

Farm land can be used to produce either soybeans or corn. If the demand for soybeans increases, then

- (a)  demand for corn will decrease.
- (b)  supply of corn will decrease.
- (c)  demand for corn will increase.
- (d)  supply of corn will increase.
- (e)  both B and C.

12

Use the figure below to answer the following question.

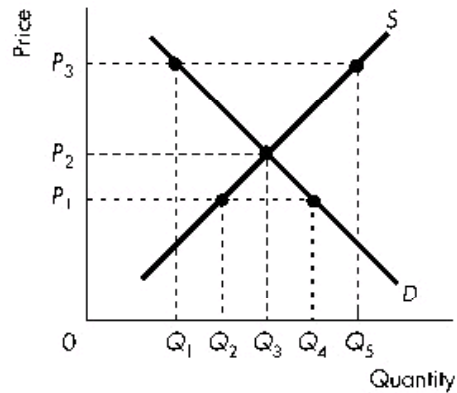


Figure 3.3

At price  $P_3$  in Figure 3.3,

- (a)  there is a shortage in the amount of  $Q_5 - Q_1$ .
- (b)  equilibrium quantity is  $Q_5$ .
- (c)  there is a tendency for the price to rise.
- (d)  this market is in equilibrium.
- (e)  there is a surplus in the amount  $Q_5 - Q_1$ .

13

**Fact 3.1**

The market for coffee is initially in equilibrium with supply and demand curves of the usual shape. Tea is a substitute for coffee; cream is a complement for coffee. Consider the market for coffee. Assume that all *ceteris paribus* assumptions continue to hold *except* for the event(s) listed.

Consider Fact 3.1. The price of cream falls. Simultaneously, there is an increase in the wages of farm workers who harvest coffee beans. The equilibrium quantity of coffee will

- (a)  fall for sure.
- (b)  rise or fall, depending on the relative shifts of supply and demand curves.
- (c)  rise for sure
- (d)  remain the same.
- (e)  rise or fall, depending on the slope of the supply curve for cream

14

A good has an income elasticity of +0.5. A rise in income from \$15,000 to \$25,000 will lead to a

- (a)  2.5 percent rise in the quantity demanded of the good.
- (b)  5 percent fall in the quantity demanded of the good.
- (c)  5 percent rise in the quantity demanded of the good.
- (d)  25 percent rise in the quantity demanded of the good.
- (e)  25 percent fall in the quantity demanded of the good.

15

As a result of Hurricane Katrina, the supply curve of apples shifted leftward, the equilibrium price of apples increased, and total revenue fell. This suggests that the price elasticity of demand for apples is

- (a)  unit elastic.
- (b)  inelastic.
- (c)  elastic.
- (d)  perfectly inelastic.
- (e)  perfectly elastic.

16

If a 12 percent decrease in price causes an 8 percent increase in quantity demanded, the price elasticity of demand is approximately

- (a)  0.8. (b)  0.12. (c)  0.67. (d)  0.96. (e)  1.5.

17

If the quantity demanded for shirts in some market obeyed the equation  $Q=200-2p$ , where  $p$  is the price of shirts and  $Q$  is the quantity demanded, then the own-price elasticity of demand for shirts ...?

- (a)  is constant and equal to 1
- (b)  approximately equals 0.25, if the price of shirts is 20
- (c)  approximately equals 5 if the price of shirts is 20
- (d)  decreases (in absolute value) as the price of shirts increases
- (e)  is constant and equal to 2

18

If some store sold left shoes and right shoes separately, which of the following statements is correct?

- (a)  The cross-price elasticity of demand for left shoes with respect to the price of right shoes would be negative, and very large in absolute value.
- (b)  Left shoes and right shoes would be perfect substitutes.
- (c)  The cross-price elasticity of demand for left shoes with respect to the price of right shoes would equal 1.
- (d)  The demand for left shoes would be independent of the price of right shoes.
- (e)  An increase in the price of right shoes would lead to an increase in the demand for left shoes.

19

If the supply of some good is very elastic, then which of the following statements describes correctly the effect of a shift right in the demand curve for that good?

- (a)  A shift right in the demand curve leads to an increase in the quantity sold, which is much larger in percentage terms than the increase in the price.
- (b)  A shift right in the demand curve leads to an increase in the quantity sold, which is much smaller in percentage terms than the increase in the price.
- (c)  A shift right in the demand curve leads to an increase in the price of the good, and a decrease in the quantity sold.
- (d)  A shift right in the demand curve does not result in any change in the quantity sold of the good.
- (e)  A shift right in the demand curve leads to the price of the good increasing, and the quantity sold of the good increasing by the same proportion as the price.

20

The cross elasticity of demand for sports cars with respect to the price of gasoline is most likely to be

- (a)  zero.
- (b)  around 1.
- (c)  substantially greater than 1.
- (d)  between zero and 1.
- (e)  less than zero.

21

An original painting had an opportunity cost of \$1,000. The painting was bought for \$1,500. How much consumer surplus did the *buyer* obtain?

- (a)  zero (b)  \$500 (c)  \$1,000 (d)  \$1,500 (e)  cannot be determined from the information given

22

A used truck has a sticker price of \$21,000. Arthur decided that he would pay no more than \$19,500 for this truck. He actually bought the truck for \$19,250. Arthur therefore has obtained a consumer surplus of

- (a)  \$21,000. (b)  \$19,250. (c)  \$19,500. (d)  \$1,750. (e)  \$250.

23

Use the figure below to answer the following question.

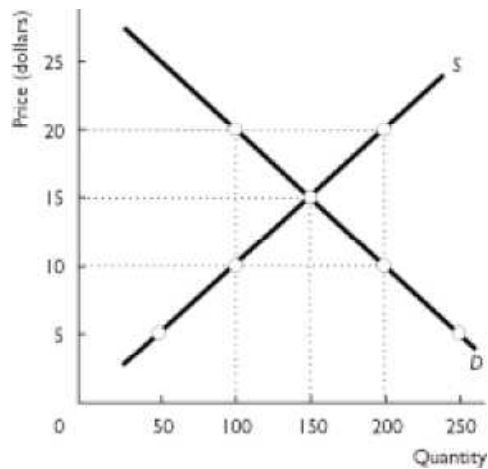


Figure 5.6

Refer to Figure 5.6. At the efficient level of the good, the price is

- (a)  \$15. (b)  \$5. (c)  \$10. (d)  zero. (e)  \$20.

24

Suppose that there are 20,000 seats available for an entertainment event (such as a concert or a basketball game). If the tickets for this event are given away free to the first 20,000 people listed in the Toronto phone book (1 seat per listing), and if these people are not allowed to transfer their tickets to anyone else, which one of the following five statements is true?

- (a)  the seats have been allocated to the people with the highest willingness to pay for them  
 (b)  nobody gets any consumer surplus from getting a seat  
 (c)  the allocation of seats to the event is efficient  
 (d)  people listed at the very beginning of the phone book are made better off than people at the end of the phone book  
 (e)  everyone in Toronto would be better off if the tickets for the event were simply sold at the gate for \$20 each (instead of being given away)

25

The table below indicates the quantity demanded of coffee by each man in a city ("man's demand"), and the quantity demanded by each woman ("woman's demand"), at different prices.

price	man's quantity demanded	woman's quantity demanded
1	10	20
2	9	18
3	8	16
4	7	14
5	6	12
6	5	10
7	4	8
8	3	6
9	2	4
10	1	2
11	0	0

A man's willingness to pay for his 10th cup of coffee is approximately what percent of a woman's willingness to pay for her 10th cup of coffee?

- (a)  50 percent. (b)  17 percent. (c)  100 percent. (d)  30 percent. (e)  200 percent.

26

Suppose that the demand for apples is specified as  $Q=200-5P$ , and the supply is defined as  $Q=5P$ . What is the consumer surplus in this market?

- (a)  1 000 (b)  500 (c)  750 (d)  250 (e)  2 000

27

In 1998, a consumer had a weekly income of \$200 to spend on pizzas, which cost \$8 each, and on videos which cost \$2 each. In 2008, the same consumer had an income of \$400 a week, to spend on pizzas, which now cost \$10 each and on videos which now cost \$3 each. Which one of the following statements is true?

- (a)  the relative price of videos, compared to pizzas, is lower in 2008 than in 1998  
 (b)  the combination of 20 pizzas and 30 videos was on her budget line in 1998  
 (c)  any combination of pizzas and videos which the consumer could afford in 1998, she could also afford in 2008  
 (d)  the combination of 20 pizzas and 30 videos is outside her budget line in 2008  
 (e)  the relative price of pizzas, compared to videos, is the same in 2008 as in 1998

28

A relative price

- (a)  is the price of one good divided by the total utility of another good.  
 (b)  is the price of one good divided by the price of another good.  
 (c)  is the ratio of the quantities of the two goods.  
 (d)  is the price of one good divided by the quantity demanded of another good.  
 (e)  is the total utility per dollar of one good divided by the total utility per dollar of another good.

29

Suppose that a person's utility from consuming boots and socks was equal to the smaller of : the number of pairs of boots and the number of pairs of socks. [So if she had 4 pairs of boots and 7 pairs of socks, her utility would be 4 ; and if she had 9 pairs of boots and 6 pairs of socks her utility would be 6.] If the price of boots was \$50 a pair, and the price of socks was \$5 a pair, how many pairs of boots and socks would she choose to buy if her income was \$550?

- (a)  9 pairs of boots and 20 pairs of socks  
 (b)  5 pairs of boots and 60 pairs of socks  
 (c)  11 pairs of boots and no pairs of socks  
 (d)  10 pairs of boots and 10 pairs of socks  
 (e)  no pairs of boots and 110 pairs of socks

30

Use the table below to answer the following question.

**Table 7.9** Windsurfing rents for \$10 per hour, snorkeling for \$5 per hour.

Hours per Month	Total Utility from Windsurfing	Total Utility from Snorkeling
1	60	20
2	110	38
3	150	53
4	180	64
5	200	70

Consider Max's utility of snorkeling and windsurfing in Table 7.9. Suppose that Max's total income rises from \$35 to \$55, *ceteris paribus*. Given that Max changes his choice of windsurfing and snorkeling, what is his approximate income elasticity for windsurfing?

- (a)  44 (b)  zero (c)  0.64 (d)  28 (e)  1.5

31

Use the figure below to answer the following question.

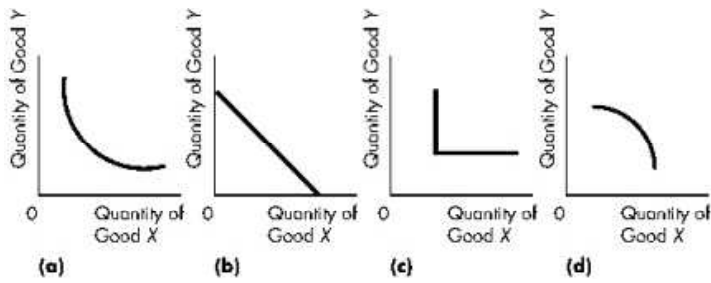


Figure 8.5

Which of the graphs in Figure 8.5 depicts the choice between two brands of potato chips which are virtually identical to the consumer?

- (a)  (a) (b)  (b) (c)  (c) (d)  (d) (e)  none of them

32

Use the figure below to answer the following question.

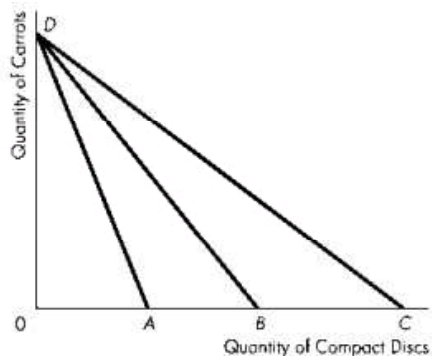


Figure 8.3

Refer to Figure 8.3. Which budget line has the lowest relative price for carrots?

- (a)  AD  
 (b)  BD  
 (c)  CD  
 (d)  The relative price is equal for all three budget lines.  
 (e)  Cannot tell unless we know the indifference curves.

33

Someone has an income of \$100, and purchases 5 CDs at \$10 each and 10 pizzas at \$5 each. Then the government taxes pizzas, and their price rises to \$10 each. Simultaneously, the government gives the person a grant of \$50 in income to make up for the tax. If consumption of CDs is graphed on the horizontal axis, and consumption of pizza on the vertical, these two changes make the person's budget line

- (a)  swivel around the original consumption choice.
- (b)  shift rightward but parallel to the original budget line.
- (c)  become less steep, with the same horizontal intercept
- (d)  shift leftward but parallel to the original budget line.
- (e)  become steeper, but with the same vertical intercept

34

When the marginal product of labour is greater than the average product of labour,

- (a)  the firm is experiencing constant returns.
- (b)  the total product curve is negatively sloped.
- (c)  the average product of labour must be increasing.
- (d)  the marginal product of labour must be increasing.
- (e)  the firm is experiencing diminishing marginal returns.

35

Use the table below to answer the following question.

Table 10.1

Labour (workers per day)	Output (sweaters per day)
0	0
1	3
2	12
3	19
4	23
5	25

Refer to Table 10.1 which represents a firm's total product curve. The average product that would be produced if the firm employed the second worker is

- (a)  12.
- (b)  6.
- (c)  9.
- (d)  3.
- (e)  7.

36

Fixed inputs are those inputs

- (a)  that are too expensive for the firm to purchase.
- (b)  in which the marginal product of the last unit of the input employed exceeds the marginal product of the previous unit.
- (c)  whose quantity used cannot be changed in the short run.
- (d)  which can be purchased only in fixed quantity lots (e.g., 200 at a time).
- (e)  that must be held in storage for at least one year.

37

Use the figure below to answer the following question.

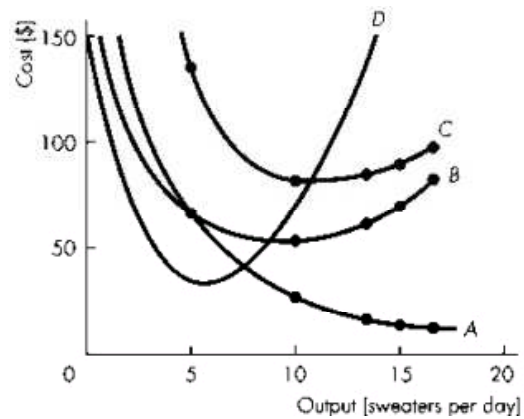


Figure 10.5

Refer to Figure 10.5, which illustrates the short-run average and marginal cost curves. The marginal cost curve is represented by the curve labelled

- (a)  A. (b)  B. (c)  C. (d)  D. (e)  none of the curves is a marginal cost curve

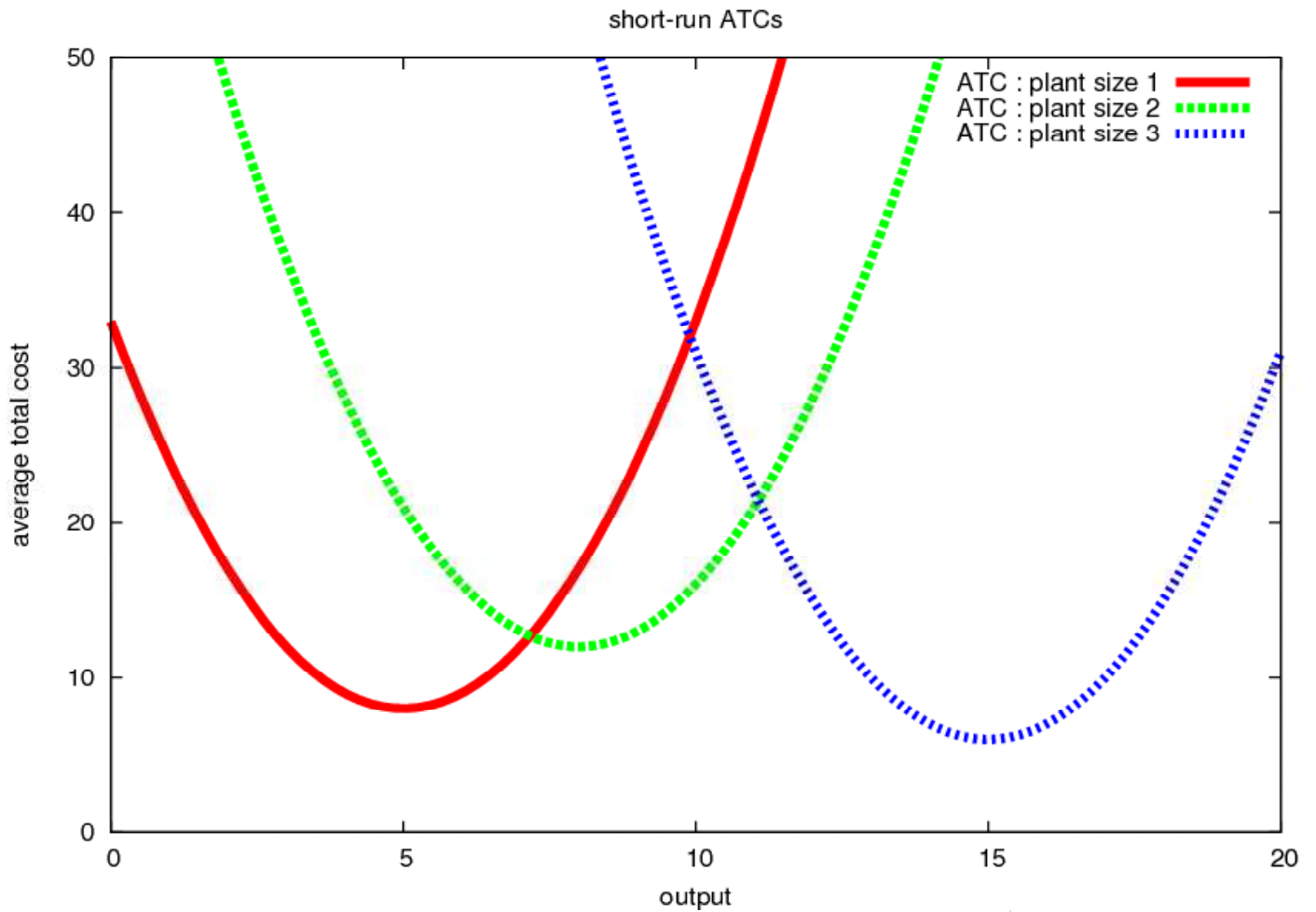
38

If  $ATC$  is rising then  $MC$  must be

- (a)  rising. (b)  falling. (c)  equal to  $ATC$ . (d)  above  $ATC$ . (e)  below  $AVC$

39

The figure below shows short-run average cost curves corresponding to 3 different plant sizes. Which one of the following 5 statements is true?



- (a)  plant size 3 has the smallest minimum efficient scale
- (b)  plant size 3 would be the efficient plant to build if the firm expects to produce an output level of 10 in the long run
- (c)  the firm's long-run average cost is always greater than 10
- (d)  the firm would not want to use plant size 3 unless it is producing 15 or more units of output
- (e)  the firm's long-run average cost curve slopes down at output levels less than 5

40

Use the figure below to answer the following question.

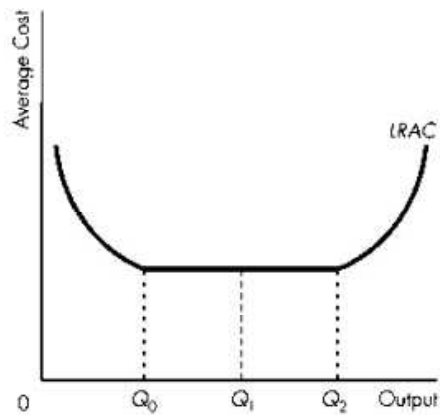


Figure 10.9

Refer to Figure 10.9, which illustrates the long-run average total cost of production when there is an infinite number of plant sizes and output ranges. Given an increase in output from  $Q_1$  to  $Q_2$ ,

- (a)  returns to scale are increasing.
- (b)  returns to scale are constant.
- (c)  there are diseconomies of scale.
- (d)  diminishing returns begin to occur.
- (e)  returns to scale are decreasing.

41

A perfectly competitive firm is maximizing profit if

- (a)  average total cost is at a minimum.
- (b)  marginal cost equals price and price is not below minimum average variable cost.
- (c)  total revenue is at a maximum.
- (d)  average variable cost is at a minimum.
- (e)  marginal cost equals price and price is not below average fixed cost.

42

Use the figure below to answer the following question.

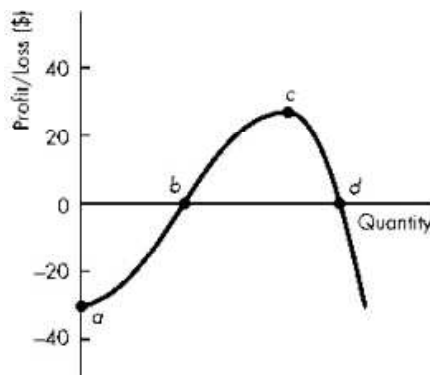


Figure 11.3

Refer to Figure 11.3, which graphs a perfectly competitive firm's total profit curve. The firm is taking a loss at

- (a)  point a. (b)  point b. (c)  point c. (d)  point d. (e)  both points b and d.

43

Suppose a firm is trying to decide whether or not to shut down temporarily in order to minimize its total loss. If the price just equals the average variable cost of production, then

- (a)  total cost equals total variable cost.  
 (b)  total revenue equals total fixed cost, and the loss equals total variable cost.  
 (c)  total variable cost equals total fixed cost.  
 (d)  total revenue equals total variable cost, and the loss equals total fixed cost.  
 (e)  total fixed cost is zero.

44

The short-run supply curve for an individual firm in a perfectly competitive industry is  $P = 1 + 2Q_s$ . If the industry consists of 100 identical firms, what is industry supply in the short run, when  $P = 7$ ?

- (a)  800 units (b)  600 units (c)  400 units (d)  300 units (e)  none of the above

45

Suppose that a perfectly competitive industry contained 100 firms (in the short run). Each firm has a U-shaped average variable cost curve. Each firm's shutdown point is a price of \$30, with an output of 20 units per day. If total industry demand at a price of \$30 was 1500 units, then what is the short-run equilibrium in the industry?

- (a)  each of the 100 firms produces 15 units  
 (b)  75 firms produce 20 units each, and the other 25 choose to produce nothing  
 (c)  no firm produces anything  
 (d)  50 firms produce 30 units each, and the other 50 firms produce nothing  
 (e)  25 firms produce 60 units each, and the other 75 produce nothing

46

Use the figure below to answer the following question.

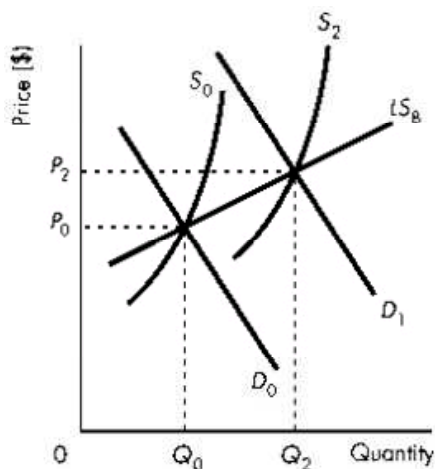


Figure 11.9

Refer to Figure 11.9. Given the increase in market demand from  $D_0$  to  $D_1$ , the graph represents

- (a)  a constant cost competitive industry.
- (b)  a decreasing cost competitive industry.
- (c)  an increasing cost competitive industry.
- (d)  a monopolized industry.
- (e)  none of the above.

47

External economies are factors beyond the control of an individual firm which

- (a)  lower its average revenue as industry output rises.
- (b)  raise its profit as industry output rises.
- (c)  raise its costs as industry output rises.
- (d)  lower its costs as industry output rises.
- (e)  lower its profit as industry output rises.

48

If a firm has no rival competitors that produce a close substitute, then

- (a)  the firm must earn only zero profit in the long run.
- (b)  the firm should exit the industry after the depreciation of its capital.
- (c)  the firm enjoys a degree of market power.
- (d)  the product must be an inferior good.
- (e)  the market probably cannot support any firms, and the firm will eventually go broke.

49

Use the figure below to answer the following question.

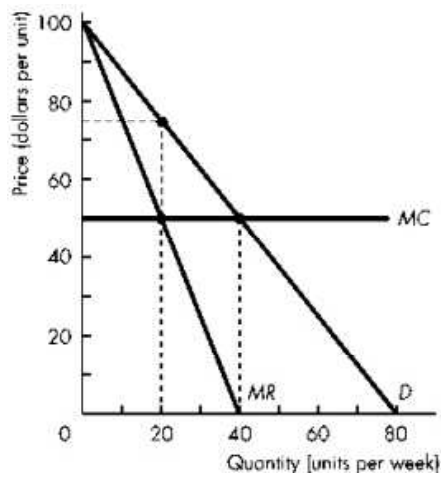


Figure 12.5

Refer to Figure 12.5. If its fixed costs were \$200, then the total profit for this single-price monopolist is

- (a)  \$500. (b)  \$400. (c)  \$0. (d)  \$200. (e)  \$300.

50

If the own-price elasticity of demand for a good equalled 2 when the price of the good was 12 and the quantity demanded of the good was 60, then the marginal revenue at a quantity of 60 equals

- (a)  +12 (b)  +6 (c)  0 (d)  -6 (e)  -12

51

Use the figure below to answer the following question.

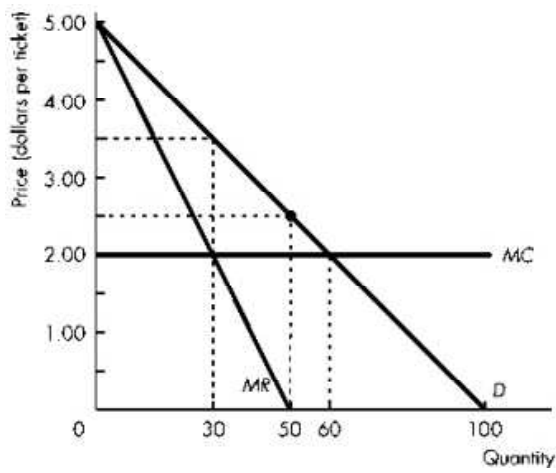


Figure 12.8

Refer to Figure 12.8. Assume this monopolist can practise perfect price discrimination, and that total fixed costs are \$20. How much is profit *increased* by the ability to practise perfect price discrimination?

- (a)  \$45 (b)  \$70 (c)  \$25 (d)  \$0 (e)  impossible to compute without more information

52

Use the figure below to answer the following question.

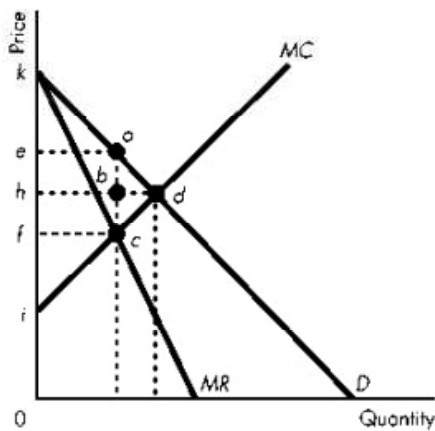


Figure 12.7

Consider the industry demand curve in Figure 12.7. If this is a single-price monopoly, what is the reduction in consumer surplus compared to the perfect competition case?

- (a)  eadh (b)  eabh (c)  acd (d)  fhdc (e)  abd

53

If a firm practises perfect price discrimination,

- (a)  it will produce the quantity at which price intersects the average total cost curve.
- (b)  it is assured of making a profit.
- (c)  its average revenue curve is flat.
- (d)  it will produce the quantity at which marginal cost intersects the demand curve.
- (e)  it will maximize revenue.

54

If a monopoly can charge different prices to men and women, and if the price it chooses to charge to men is higher than the price it charges to women, then it must be true that

- (a)  the marginal revenue from sales to men exceeds its marginal revenue from sales to women
- (b)  the monopoly is not maximizing profit
- (c)  the marginal revenue from sales to men is less than the marginal revenue from sales to women
- (d)  the own-price elasticity of demand is higher for men than for women
- (e)  the own-price elasticity of demand is higher for women than for men

55

Use the figure below to answer the following question.

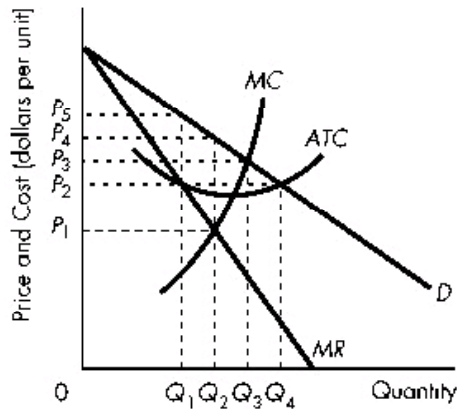


Figure 13.4

Figure 13.4 represents a monopolistically competitive firm in short-run equilibrium. What is the firm's level of output?

- (a)   $Q_2$ .
- (b)  zero.
- (c)   $Q_3$ .
- (d)   $Q_1$ .
- (e)   $Q_4$ .

56

Excess capacity in monopolistically competitive firms is described by the fact that

- (a)  each firm builds a huge plant.
- (b)  each firm faces a demand that is perfectly elastic.
- (c)  marginal cost is too high.
- (d)  the existence of slightly differentiated products, serving almost the same purpose, causes a waste of precious natural resources.
- (e)  firms produce at an output that is less than the output associated with their minimum average total cost.

57

If there is a successful collusive agreement in a duopoly to maximize profit,

- (a)  the industry marginal revenue will equal the industry average cost of production.
- (b)  the price will be the same as the competitive price.
- (c)  the industry price will equal the marginal cost of production.
- (d)  the industry price will equal the average cost of production.
- (e)  the price will be the monopoly price.

58

There exists an incentive to cheat on a collusive agreement as long as

- (a)  price equals average revenue.
- (b)  price exceeds marginal cost.
- (c)  price equals marginal cost.
- (d)  price is above minimum average total cost.
- (e)  none of the above.

59

A Nash equilibrium occurs when

- (a)  each player complies with the collusive agreement.
- (b)  you cooperate until the other player cheats, and then you cheat forever.
- (c)  one strategy for each player is always worse than another, independent of the other player's actions.
- (d)  each player takes the best possible action given the other player's action.
- (e)  none of the above.

60

Use the table below to answer the following question.

Table 13.2

		Firm B	
		Lower Prices	Higher Prices
Firm A	Lower Prices	A: \$2 B: \$5	A: \$20 B: -\$10
	Higher Prices	A: -\$10 B: \$25	A: \$10 B: \$20

Table 13.2 shows the profits earned by firms A and B, given the prices chosen by the firms. In a Nash equilibrium, firm A will make a profit of

- (a)  \$2. (b)  \$20. (c)  \$10. (d)  -\$10. (e)  an indeterminate amount.

61

A market economy tends to \_\_\_\_\_ goods with negative externalities and \_\_\_\_\_ goods with positive externalities.

- (a)  underproduce; underproduce  
 (b)  produce; consume  
 (c)  underproduce; overproduce  
 (d)  overproduce; overproduce  
 (e)  overproduce; underproduce

62

Felix and Oscar live together. Oscar likes to smoke cigars. Felix is harmed by the cigars that Oscar smokes. The table below indicates the **total benefit** Oscar gets from smoking cigars, which depends on the number of cigars he smokes per day. (So the table indicates that smoking 3 cigars a day gives Oscar a total benefit of 26 dollars.) The table also indicates the **total damage**, in dollars, done to Felix, as a function of the number of cigars that Oscar smokes.

number of cigars	0	1	2	3
total benefit to Oscar	0	11	20	26
total harm to Felix	0	2	5	10

If cigars cost \$8 each, what is the efficient number of cigars for Oscar to smoke each day?

- (a)  0 (b)  1 (c)  2 (d)  3 (e)  4

63

Use the figure below to answer the following question.

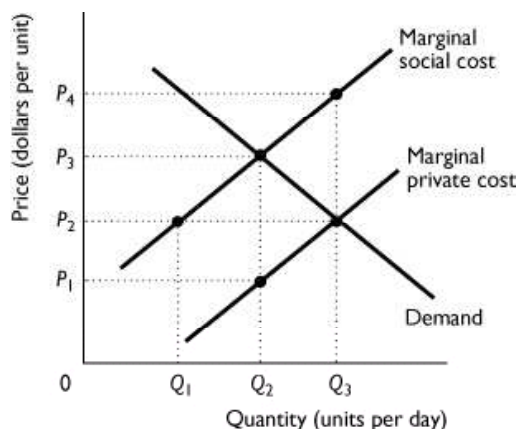


Figure 15.1

Refer to Figure 15.1. Given in this figure are the private and social marginal cost functions and the market demand function. If a constant per unit tax is imposed that generates an efficient allocation of resources, then the output level will be

- (a)   $Q_1$ .
- (b)   $Q_2$ .
- (c)  zero, as the industry will be shut down.
- (d)  greater than  $Q_3$ .
- (e)   $Q_3$ .

64

If the training and experience that software developers get at one firm is also useful if they move to another software firm, then which of the following statements is most accurate?

- (a)  A tax on software is needed to get an efficient outcome.
- (b)  The quantity of software production is efficient.
- (c)  A subsidy on software production can result in an efficient outcome.
- (d)  Expansion of output at one software firm imposes a negative externality on other software firms.
- (e)  Each software firm will provide an efficient level of training to its developers.

65

The Coase theorem states that

- (a)  if property rights are established, and transactions costs are low, private transactions will solve the externality problem.
- (b)  property rights are social arrangements governing ownership, use and disposal of factors of production and goods and services.
- (c)  global warming is hard to solve due to the prisoners' dilemma aspect of the problem.
- (d)  taxes will solve the problem of external costs.
- (e)  patents and copyrights will solve the problem of external costs.

66

Use the figure below to answer the following question.

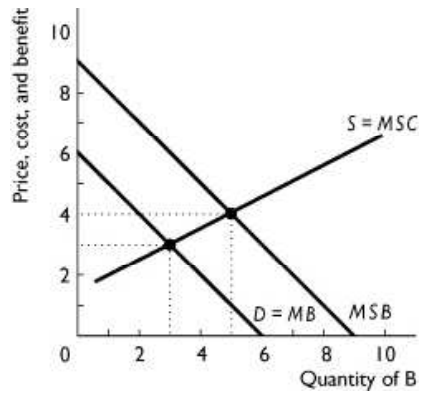


Figure 15.5

In Figure 15.5, what is the efficient quantity (in units) of good B?

- (a)  0 units    (b)  9 units    (c)  5 units    (d)  3 units    (e)  6 units

67

A good that exhibits both rivalry and excludability is a

- (a)  common resource.  
 (b)  private good.  
 (c)  public good.  
 (d)  regulated good.  
 (e)  government good.

68

If a monopoly produces a good which is non-rivalrous and excludable, and if the monopoly can price discriminate perfectly, which of the following statements is true?

- (a)  the monopoly will produce a quantity at which its marginal revenue equals 0  
 (b)  the monopoly will charge all customers the same price  
 (c)  the monopoly can make a profit, no matter what is the cost of producing the good  
 (d)  the monopoly will provide an inefficiently high quantity of the good  
 (e)  the monopoly will provide an efficient quantity of the good

69

What is the efficient number of episodes of a television show to produce, given the following information?

It costs \$10,000,000 to produce each episode.

There are 10 million potential viewers, and each viewer's demand for episodes is shown in the table below.

price	0	1	2	3	4	5
quantity	5	4	3	2	1	0

- (a)  1   (b)  2   (c)  3   (d)  4   (e)  5

70

If there are 10 people sharing a pure public good, and if the efficient quantity provided of the public good is 20 units, and if the marginal cost of each unit of the public good is 5, then which of the following statements is true?

- (a)  At a price of 5, the sum of the 10 people's quantities demanded of the public good must equal 20.  
 (b)  At a quantity of 20, the sum of the 10 peoples' marginal benefits from the public good must equal \$5.  
 (c)  At a quantity of 20, each person's marginal benefit from the public good must equal 0.5  
 (d)  At a price of 20, aggregate demand of the 10 people must equal 5 units.  
 (e)  At a quantity of 20, the marginal revenue from the public good must equal 5.

71

The air in the atmosphere is

- (a)  nonrival and excludable.  
 (b)  rival and excludable.  
 (c)  private services.  
 (d)  rival and nonexcludable.  
 (e)  nonrival and nonexcludable.

72

One way to alleviate the problem of common resources is to

- (a)  set a price of \$1 per unit of using the common resource because it is an affordable price.  
 (b)  distribute common resources among all individuals free of charge.  
 (c)  subsidize use of the common property resource.  
 (d)  distribute common resources among those individuals who really need the resource free of charge.  
 (e)  make the resource private property.

73

Use the figure below to answer the following question.

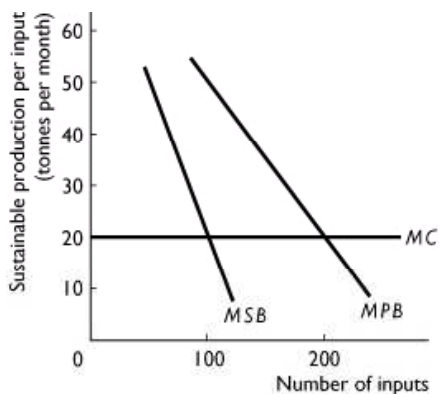


Figure 16.3

Refer Figure 16.3. What is the efficient use of this common resource?

- (a)  200 inputs producing 50 tonnes per input
- (b)  100 inputs producing 20 tonnes per input
- (c)  200 inputs producing 20 tonnes per input
- (d)  100 inputs producing 50 tonnes per input
- (e)  There is no efficient use of this common resource.

74

If the marginal revenue product of labour to a firm could be written  $MRP=100-2L$ , where  $L$  was the quantity employed of labour, then what is the equation of the firm's demand for labour, as a function of the wage  $w$ ?

- (a)   $L=50-w/2$
- (b)   $L=100-2w$
- (c)   $L=w$
- (d)   $L=100-w/2$
- (e)   $L=100+2w$

75

As the wage rate rises, a household will have a backward-bending supply of labour curve if

- (a)  the wage rate rises above the reservation wage.
- (b)  the substitution effect dominates the income effect.
- (c)  the income effect reinforces the substitution effect.
- (d)  the income effect dominates the substitution effect.
- (e)  leisure is an inferior good.

76

.For a firm wishing to maximize profit, labour should be hired until

- (a)  the additional benefit of hiring the labour is equal to the additional revenue the labour generates.
- (b)  the additional cost of hiring the labour is equal to the additional revenue the labour generates.
- (c)  they can sell that labour for no more than what they paid for it.
- (d)  there is no more available at the market wage rate.
- (e)  the wage rate paid to the labour equals the marginal cost of production.

77

A machine that costs \$2,000 will generate marginal revenue product of \$1,100 at the end of one year and the same amount at the end of two years. What is the net present value of the machine, if the interest rate is 10 percent?

- (a)  \$0    (b)  -\$49.90    (c)  \$90.91    (d)  -\$90.91    (e)  \$1,909.09

78

If the interest rate is 10 percent per year, the present value of \$100 in two years is

- (a)  \$120.00.    (b)  \$121.00.    (c)  \$82.64.    (d)  \$70.00.    (e)  \$90.91.

79

If the market for a nonrenewable natural resource is currently in equilibrium, the price of the resource

- (a)  is expected to rise at a rate equal to the interest rate.
- (b)  is expected to fall at a rate equal to the interest rate.
- (c)  will actually fall at a rate equal to the interest rate.
- (d)  is equal to the marginal revenue product of the resource.
- (e)  will rise at a rate equal to the inflation rate.

80

In the market for land in the short run, all payments to the land are

- (a)  mostly economic rent but with some opportunity cost.
- (b)  returns to the marginal productivity of land.
- (c)  opportunity cost.
- (d)  economic rent.
- (e)  mostly opportunity cost but with some economic rent.