Chapter 2

Production Possibilities and Opportunity Costs

TRUE/FALSE

Answer: T
Diff: 1
1. Entrepreneurship is one of the factors of production.

Answer: T
Diff: 1
2. A tractor used in the fields by a farmer is an example of capital.

Answer: F
Diff: 3
3. Using robots on an assembly line is an example of an investment in human capital.

Answer: T
Diff: 1
4. Land is a resource category that includes timber growing on the land.

Answer: T
Diff: 3
5. If we move along a production possibilities curve and choose more of one type of good, the opportunity cost is measured in terms of the amount of the other good that is given up.

Answer: F
Diff: 5
6. All resources are assumed to be of equal quality when we draw a production possibilities curve that is bowed out.

Answer: F
Diff: 3
7. A wealthy economy is likely to choose to produce all consumption goods and no capital goods.

Answer: T
Diff: 3
8. If an economy is operating at a point inside its production possibilities curve, this reflects inefficient resource use.

Answer: F
Diff: 3
9. If all countries specialize in producing goods for which they have a comparative advantage, then total world output will be lower.

Answer: F
Diff: 3
10. The production of more capital goods this year means we must sacrifice the production of consumption goods in the future.

Answer: F
Diff: 4
11. To move along a production possibilities curve from one point to another requires additional resources.

Answer: T
Diff: 3
12. Unemployment or underemployment is shown by a point located inside the production possibilities curve.

Answer: T
Diff: 2
13. When resources are destroyed the production possibilities curve inward to the left.

Answer: F
Diff: 4
14. A country should always specialize in the production of any product for which it holds an absolute advantage.

Answer: T
Diff: 2
15. Innovation is the application of new technology to a production process.

Answer: F
Diff: 3
16. Food in the pantry of a household is a resource.

Answer: T
Diff: 5
17. The law of increasing costs causes the production possibilities curve to be bowed outward from the origin.

Answer: F
Diff: 4
18. An increase in unemployment will cause this year's production possibilities curve to shift inward toward the origin.

Answer: F
Diff: 3
19. Factors of production are resources used in the consumption of goods and services.

Answer: T
Diff: 1
20. Capital is a good used in the production of goods that households consume.

Answer: T
Diff: 1
21. The production possibilities curve shows the different combinations of goods that can be produced with a set of given resources.

Answer: T
Diff: 1
22. The law of increasing costs states that the opportunity cost of producing a good increases as more of the good is produced.

Answer: F
Diff: 2
23. The production possibilities curve shifts to the left when resources in the economy increase.

Answer: F
Diff: 2
24. Any point inside a production possibilities curve indicates that the economy is using all its available resources and technology.

Answer: F
Diff: 1
25. If resources are underemployed, then the economy is producing as much as possible.

Answer: T
Diff: 1
26. An economy is producing efficiently when all factors of production are used in their most productive capacity.

Answer: T
Diff: 2
27. If Belgium has a comparative advantage over France in the production of beer, then it can produce beer at a lower opportunity cost than France.

Answer: T
Diff: 3
28. The United States has an absolute advantage over Mexico in the production of corn when it can produce corn using fewer resources than Mexico.

Exhibit B-1 below shows the quantity of thing-a-ma-jigs or truffala fruit that can be produced by each country, if all of its resources are devoted to that product.

Exhibit B-1

Product	Barbootland	Canary Island
Coconuts	50	40
Kiwi fruit	25	10

Answer: T
Diff: 1
29. In Exhibit B-1 Barbootland has an absolute advantage in the production of kiwi fruit.

Answer: F
Diff: 3
30. Referring to Exhibit B-1, Barbootland has a comparative advantage in the production of coconuts.

Answer: T
Diff: 3

31. In Exhibit B-1 Canary Island has a comparative advantage in the production of coconuts.

Answer: F
Diff: 1

32. Referring to Exhibit B-1, Canary Island has an absolute advantage in the production of both coconuts and kiwi fruit.

Answer: F
Diff: 2

33. Canary Island, in Exhibit B-1, does not have a comparative advantage in the production of either product.

Answer: T
Diff: 3

34. Trade is possible because Canary Island's opportunity cost of coconuts is less than Barbootland's.

Answer: F
Diff: 1

35. Trade is not possible because Barbootland has an absolute advantage in the production of both goods.

MULTIPLE CHOICE

Answer: C
Diff: 3

1. Referring to the information in Exhibit B-1, the opportunity cost of one kiwi fruit is
   a. 50 coconuts
   b. ½ coconuts
   c. 2 coconuts
   d. 25 coconuts
   e. 2.5

Answer: D
Diff: 3

2. Canary Island's opportunity cost (examine Exhibit B-1) of coconuts is equal to
   a. 10 kiwi fruit
   b. 40 coconuts
   c. 4 kiwi fruit
   d. ¼ kiwi fruit
   e. 4/5 kiwi fruit

Answer: A
Diff: 4

3. Given the data in Exhibit B-1
   a. Canary Island should produce coconuts and trade with Barbootland for kiwi fruit.
   b. Canary Island should produce kiwi fruit and trade with Barbootland for coconuts.
   c. Barbootland should produce coconuts and trade with Canary Island for kiwi fruit.
   d. trade is not possible because Barbootland does not have a comparative advantage in producing either good.
   e. trade is not possible because Barbootland has an absolute advantage in production of both goods.

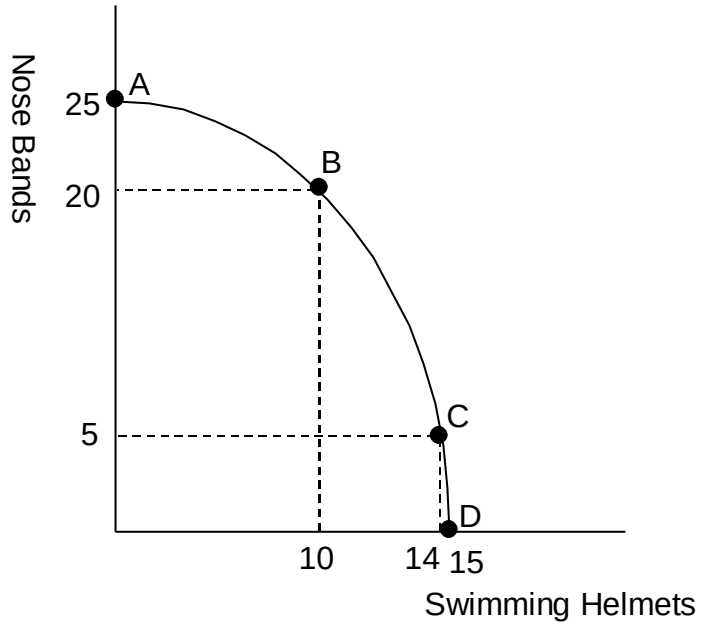
Answer: C
Diff: 2

4. Starting from point B in Exhibit B-2 (on the next page), the opportunity cost of 4 more swimming helmets is
   a. 20 nose bands
   b. 5 nose bands
   c. 15 nose bands
   d. 3.75 nose bands
   e. indeterminate

Answer: A
Diff: 2

5. As we move from point A to B, to C, and finally to D in Exhibit B-2, the Law of Increasing Cost is reflected by the fact that the opportunity cost of swimming helmets
   a. increases
   b. decreases
   c. remains constant
   d. changes sporadically
   e. is indeterminate

Exhibit B-2



Answer: D
Diff: 3

6. Moving from point A to point B in Exhibit B-2 the opportunity cost of 1 swimming helmet is
   a. 1 nose band
   b. 2 nose bands
   c. 4 nose bands
   d. 5 nose bands
   e. 8 nose bands

Answer: C
Diff: 2

7. In addition to the items one must give up in order to afford the cost of cigarettes, the opportunity cost of smoking includes
   a. your enjoyment from smoking
   b. the health effects one places upon others
   c. your expected health effects and shortened life span
   d. harassment from nonsmokers
   e. smoking cessation advertising on television

Answer: D
Diff: 3

8. Susan Sneed gave up her $55,000 job at ACC, Inc. to return to college to change careers. She reduced her wardrobe to cheaper jeans and t-shirts, paid $5,000 in tuition, continued to make her family's $1,200 per month home mortgage payments, and bore the burden of a variety of inane comments about the stupidity of older students giving up good paying jobs to return to school. Which of the above items *is not needed* to determine the opportunity cost of her return to college?
   a. her $55,000 ACC, Inc. salary
   b. the altered wardrobe costs
   c. the $5,000 tuition expense
   d. her family's $1,200 per month mortgage expense
   e. psychological stress from inane comments

Answer: D
Diff: 2

9. *Factors of production* is another name for
   a. the goods produced in a production possibilities table
   b. the goods not produced in a production possibilities table
   c. the goods produced in international trade
   d. resources
   e. money

Answer: D
Diff: 2

10. Labor resources include
    a. only physical exertion
    b. only the resources used in the production of other resources
    c. only skilled labor
    d. both physical and mental exertion
    e. the expenditure of people's effort in producing goods, but not services

Answer: B
Diff: 2

11. The two human factors of production are
    a. labor and mental exertion
    b. labor and entrepreneurship
    c. entrepreneurship and physical exertion
    d. labor and physical exertion
    e. entrepreneurship and mental exertion

Answer: C
Diff: 3

12. Which of the following is a capital resource?
    a. a new car bought by the Jones family
    b. a truck used in transporting school children to a soccer practice
    c. a truck used in transporting steel to an automobile factory
    d. hamburger meat used to produce a juicy hamburger on a home grill
    e. a sapling used to create a forest in a new national park

Answer: E
Diff: 2

13. Which of the following is associated with the creation of human capital?
    a. a farmer buys more land
    b. a robot replaces a worker
    c. a worker replaces a robot
    d. a worker spends less time on the job
    e. a worker attends training classes

Answer: C
Diff: 1

14. Factors of production do *not* include
    a. land
    b. labor
    c. money
    d. capital
    e. entrepreneurship

Answer: B
Diff: 3

15. A good example of land resources is
    a. a steel billboard on an interstate highway
    b. water
    c. wood-based furniture
    d. machinery made from iron ore
    e. buildings located on prime real estate

Answer: D
Diff: 3

16. The entrepreneur
    a. serves as a liaison between management and labor
    b. owns all of the factors of production
    c. allocates the risk and uncertainties of enterprise to others
    d. assumes the risk and uncertainties of enterprise
    e. earns more than labor

Answer: B
Diff: 4

17. The activity involved in managing a firm is considered by economists to be
    a. land activity
    b. labor activity
    c. human capital activity
    d. entrepreneurial activity
    e. nonproductive activity

Exhibit B-3

	A	B	C	D	E
Capital Goods	0	1	2	3	4
Consumption Goods	25	23	19	13	0

Answer: D
Diff: 1

18. Exhibit B-3 shows an economy's production possibilities table. If it chooses the combination of goods at point A,
    a. not all the available resources are being used
    b. all resources are used in the production of capital goods
    c. no consumption goods are being produced
    d. every resource in the economy is being used in the production of consumption goods
    e. no capital goods are being used as factors of production

Answer: B
Diff: 2

19. Exhibit B-3 shows an economy's production possibilities table. The first unit of capital goods will cost the economy _____ units of consumption goods.
    a. 25
    b. 2
    c. 1
    d. 23
    e. 11

Answer: D
Diff: 3

20. Exhibit B-3 shows an economy's production possibilities table. As additional units of capital goods are produced, the quantity of consumption goods produced _____, because _____.
    a. increases; the production possibilities table shows only the maximum efficiency points
    b. increases; of the law of increasing costs
    c. decreases; of the law of increasing costs
    d. decreases; there is a limited supply of resources
    e. increases; capital goods are used to produce consumption goods

Answer: A
Diff: 3

21. Exhibit B-3 shows an economy's production possibilities table. The second unit of capital goods production will cost _____ units of consumption goods, and the third unit of capital goods production will cost _____ units of consumption goods.
    a. 4; 6
    b. 25; 23
    c. 23; 19
    d. 1; 23
    e. 2; 19

Answer: C
Diff: 5

22. Exhibit B-3 shows an economy's production possibilities table. As additional units of capital goods are produced, the opportunity cost in terms of sacrificed units of consumption goods _____ because of _____.
    a. decreases; greater efficiency in production
    b. increases; decreasing opportunity cost
    c. increases; the law of increasing costs
    d. increases; greater efficiency in production
    e. decreases; the law of increasing costs

Answer: D
Diff: 2

23. The opportunity cost of going to a movie is
    a. the price of the movie
    b. number of hours you spend watching the movie
    c. expected gains you experience by watching the movie
    d. the next best alternative that must be sacrificed in order to go to the movie
    e. expected gains minus the expected cost of the movie

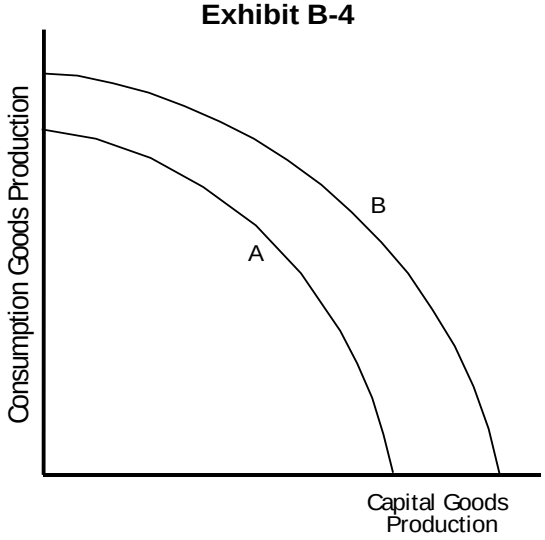
Answer: B
Diff: 4

24. A production possibilities curve is downward sloping because of
    a. the law of increasing costs
    b. the finite nature of the resource base
    c. inefficiency
    d. improper output mix
    e. unemployment

Answer: A
Diff: 5

25. The production possibilities curve is bowed outward from the origin because of
    a. the law of increasing costs
    b. the finite nature of the resource base
    c. inefficiency
    d. improper output mix
    e. unemployment

Exhibit B-4



Answer: C
Diff: 5

26. In Exhibit B-4, which of the following could have caused the production possibilities curve to shift from curve A to curve B?
    a. a major natural disaster
    b. an increase in consumption goods production this year
    c. the use of newer and more productive technology
    d. a decrease in unemployment
    e. a decrease in consumption goods production this year

Answer: A
Diff: 5

27. In Exhibit B-4, which of the following could have caused the production possibilities curve to shift from curve B to curve A?
    a. a major natural disaster
    b. an increase in resources
    c. the use of newer and more productive technology
    d. a decrease in unemployment
    e. an improvement in literacy

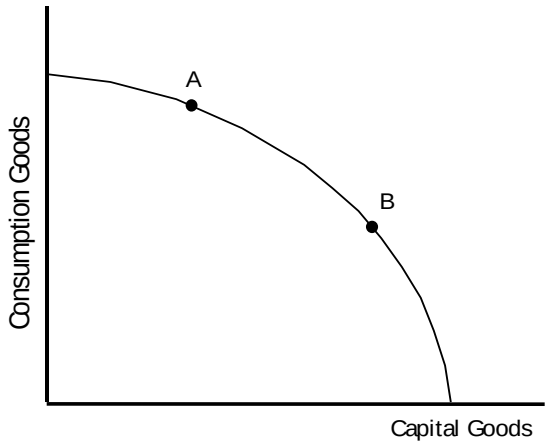
Answer: D
Diff: 3

28. The production possibilities curve demonstrates the basic economic principle that
    a. economies are always efficient
    b. assuming full employment, supply will always determine demand
    c. assuming full employment, an economy is efficient only when the production of capital goods in a particular year is greater than the production of consumption goods in that year
    d. assuming full employment, to produce more of any one thing, the economy must produce less of at least one other good
    e. the production of more consumption goods this year requires the production of more capital goods this year

Answer: E
Diff: 5

29. Which of the following describes the *vicious circle of poverty?*
    a. Because resources are limited, all economies eventually become poor.
    b. In the long run, economies cycle between being rich and being poor.
    c. For an economy to grow requires more consumption goods, which requires less capital goods, which means it will eventually become poor.
    d. Due to excessive consumption, rich economies will destroy their resource base and eventually become poor.
    e. Poor economies are poor because they do not produce sufficient capital goods, and without the production of sufficient capital goods, they remain poor.

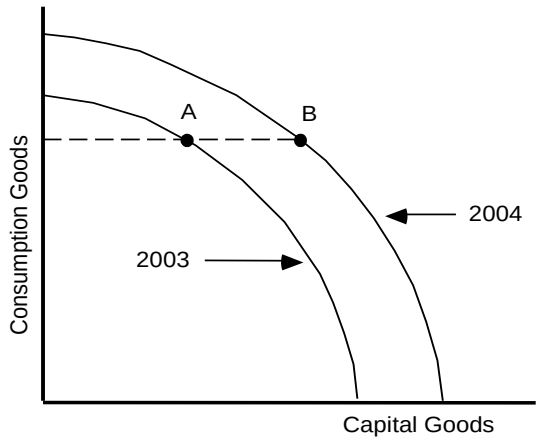
Exhibit B-5



Answer: C
Diff: 4

30. If two countries have the same production possibilities curve as shown in Exhibit B-5, but this year country A is located at point A on its PPC and country B is located at point B on its PPC, then country A
    a. is better off today than country B
    b. will grow at a faster rate than country B
    c. will grow at a slower rate than country B
    d. is producing more capital goods today than country B
    e. is more efficient today than country B

Exhibit B-6



Answer: E
Diff: 4

31. In year 2003 the country of Exhibit B-6 was located at point A on its year 2003 production possibilities curve. In 2004 this country was located at point B on its 2004 production possibilities curve. Which of the following could have caused this shift in its production possibilities curve?
    a. more efficient production in 2003
    b. greater use of resources in 2003
    c. a natural disaster in 2003 which led to a destruction of resources
    d. higher unemployment in 2003
    e. the production of capital goods in 2003 increased its resource base for 2004

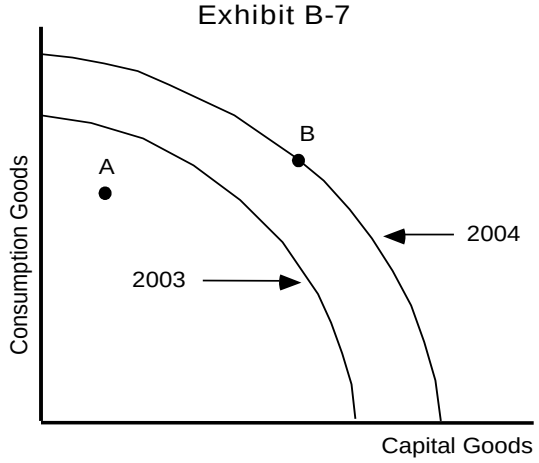
Answer: B
Diff: 3

32. In year 2003- the country of Exhibit B-6 was located at point A on its year 2003 production possibilities curve. In 2004 this country was located at point B on its 2004 production possibilities curve. This country
    a. is producing the same quantity of capital goods in both years
    b. is producing the same quantity of consumption goods in both years
    c. had no economic growth between 2003 and 2004
    d. had higher unemployment in 2003 than in 2004
    e. had higher unemployment in 2004 than in 2003

Answer: D
Diff: 4

33. In year 2003 the country of Exhibit B-6 was located at point A on its year 2003 production possibilities curve. In 2004 this country was located at point B on its 2004 production possibilities curve. This economy
    a. produces less of both goods in 2004 than in 2003
    b. produces less of capital goods in 2004 than in 2003
    c. is more efficient in 2004 than in 2003
    d. experienced economic growth since 2003
    e. had higher unemployment in 2004 than in 2003

Exhibit B-7



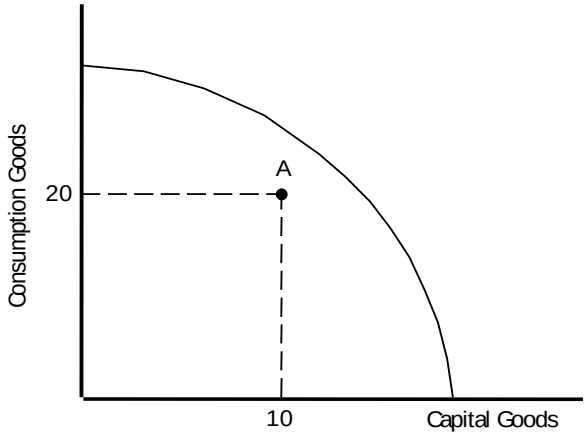
Answer: B
Diff: 4

34. Exhibit B-7 shows the production possibilities curves for a country for the years 2003 and 2004. Suppose the country was located at point A in 2003 and point B in 2004. This economy
    a. experienced a loss of resources in 2004
    b. had lower unemployment in 2004 than in 2003
    c. achieved full employment in 2003 and in 2004
    d. is less efficient in 2004 than in 2003
    e. produced fewer goods in 2004 than in 2003

Answer: C
Diff: 3

35. Exhibit B-7 shows the production possibilities curves for a country for the years 2003 and 2004. Which of the following could have caused this shift in the production possibility curves?
    a. a decrease in unemployment
    b. a decline in technology
    c. an increase in the quantity of capital goods used as a resource
    d. a natural disaster
    e. more efficient production

Exhibit B-8



Answer: B
Diff: 3

36. Exhibit B-8 (on the previous page) shows an economy located at point A, within its production possibilities curve. Which of the following statements is *false?*
    a. This economy could produce more of both capital and consumption goods.
    b. This economy is experiencing full employment.
    c. This economy could produce more capital goods without decreasing the quantity of consumption goods produced.
    d. This economy could produce more consumption goods without decreasing the quantity of capital goods produced.
    e. Not every resource in this economy is being utilized.

Answer: E
Diff: 2

37. Which of the following changes would *not* lead to a shift in Canada's production possibilities curve?
    a. the introduction and use in Canada of more advanced technology
    b. a substantial emigration of Canadian workers to the U.S.
    c. a prolonged summer drought in Canada's Prairie Provinces that destroys 18% of Canada's wheat harvest
    d. a sharp increase in the number of Canadians earning advanced degrees in education, e.g., BA's, BS's, MD's and PhD's
    e. a change in the composition of Canada's output

Answer: A
Diff: 1

38. If a resource is underemployed, it
    a. is being used in production, but not in its most productive use
    b. is essentially unemployed
    c. is not considered a productive resource
    d. cannot be used as a factor of production
    e. must be a labor resource

Answer: E
Diff: 1

39. An example of an underemployed resource is a(n)
    a. farmer in Illinois who plants corn instead of wheat
    b. auto mechanic who is laid off from his job
    c. welfare recipient who doesn't work
    d. retired senior citizen who doesn't work
    e. person with a Ph.D. in chemistry who drives a taxi as a full-time job

Answer: C
Diff: 2

40. If a resource is unemployed, it
    a. is also underemployed
    b. is utilized, but not in its most productive employment
    c. is not utilized
    d. is not counted as a resource for the economy
    e. must be a labor resource

Answer: A
Diff: 2

41. Which of the following would be an example of an unemployed resource?
    a. John has been laid off from his job as an auto mechanic.
    b. Betty, a computer specialist, takes a job as a hotel maid.
    c. Mary, a senior citizen, receives a social security check.
    d. Sam, 10 years old, is in the fifth grade.
    e. a 10-year-old computer is now only used as a word processor.

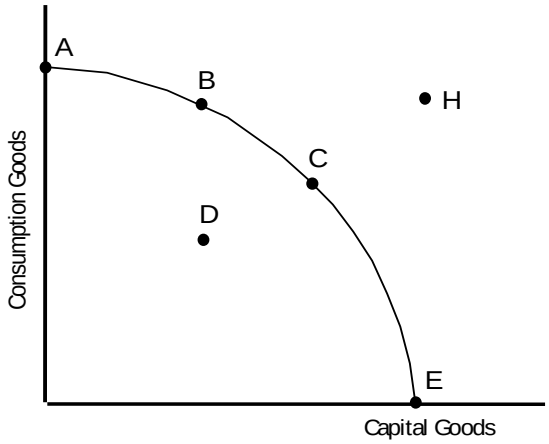
Answer: E
Diff: 5

42. Consider a two-goods (capital and consumption) production possibilities curve for the year 2004. Which of the following pairs are assumed fixed in this scenario?
    a. unemployment and capital goods production in the year 2004
    b. number of resources and consumption goods production in the year 2004
    c. composition of the economy's output and number of resources in the year 2004
    d. capital and consumption goods production in the year 2004
    e. technology and number of resources in the year 2004

Answer: D
Diff: 3

43. A production possibilities curve depicts
    a. combinations of resources the economy has the capacity to produce
    b. prices that can be charged for capital and consumption goods
    c. combinations of prices and outputs that can be produced
    d. combinations of goods the economy has the capacity to produce
    e. combinations of resources and prices that the economy can produce

Exhibit B-9



Answer: C
Diff: 4

44. In Exhibit B-9, it can be inferred that
    a. point A is preferred to point B
    b. point A is preferred to point E
    c. point A is preferred to point D
    d. point B is preferred to point A
    e. point B is preferred to point C

Answer: D
Diff: 3

45. In Exhibit B-9, if the economy decides to locate at point E,
    a. this is its best choice because it is producing maximum capital goods
    b. this is its best choice because it is producing maximum consumption goods
    c. it has not achieved full employment
    d. it could not sustain itself in the long run because its people will have no consumption goods (presumably, this includes food)
    e. the economy has not achieved maximum efficiency

Answer: D
Diff: 5

46. In Exhibit B-9, the combination of goods given by point H could
    a. never be achieved by this economy
    b. be achieved today if the economy achieved full employment
    c. be achieved today if the economy achieved maximum efficiency
    d. not be achieved today
    e. be achieved today with the proper allocation of resources

Answer: B
Diff: 5

47. In Exhibit B-9, which of the following is *not* true regarding point H? Point H
    a. cannot be achieved by this economy today
    b. could be achieved today if the economy only achieved full employment
    c. could be achieved in the future with a larger resource base
    d. could be achieved in the future with more productive technology
    e. could be achieved in the future if the economy grows

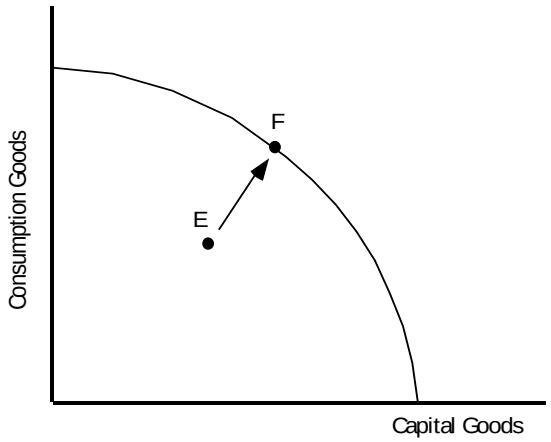
Answer: E
Diff: 4

48. In Exhibit B-9, point H is
    a. achievable with today's resource base
    b. not achievable today because the economy has not achieved full employment
    c. not achievable today because the economy is not at its maximum point of efficiency
    d. not achievable today because of resource underemployment
    e. not achievable today because of insufficient resources

Answer: D
Diff: 3

49. In Exhibit B-9, point D
    a. is preferred to point A
    b. represents one point of maximum production for the economy
    c. is not achievable this year because of limited resources
    d. could represent unemployment or underemployment
    e. is preferred to point H

Exhibit B-10



Answer: E
Diff: 5

50. If the economy of Exhibit B-10 was located at point E but has moved to point F, we would know that
    a. it was impossible because it hasn't sufficient resources to make that move
    b. the rate of unemployment increased
    c. consumption goods production increased, but capital goods production decreased
    d. its unemployment decreased, but at the expense of either capital or consumption goods production
    e. it has achieved full employment

Answer: D
Diff: 5

51. If the economy of Exhibit B-10 was located at point E but has moved to point F, which of the following could have caused this movement?
    a. an advance in technology
    b. an increase in the quantity of resources
    c. an increase in human capital, e.g., higher levels of education
    d. the productive use of previously unemployed resources
    e. an increase in unemployment

Answer: E
Diff: 1

52. Economic efficiency is defined in the text as
    a. the maximum production of consumption goods
    b. the maximum production of capital goods
    c. a balanced production of consumption and capital goods
    d. a maximum set of resources
    e. the absence of underemployment or unemployment

Answer: D
Diff: 2

53. Specialization refers to
a. one person performing a wide variety of tasks
b. labor replacing capital in production
c. capital replacing labor in production
d. limiting the number of tasks a resource performs
e. performing all tasks with only one resource

Answer: D
Diff: 3

54. Specialization leads to
a. increases in production because labor uses more advanced technology
b. decreases in production because each resource becomes less productive
c. increases in production because more resources are being used
d. increases in production because each resource becomes more productive
e. increases in production because capital is more productive than labor

Answer: B
Diff: 1

55. Specialization of labor refers to the
a. use of more skilled versus unskilled labor
b. division of labor
c. opportunity costs of using labor
d. law of increasing costs associated with labor
e. comparative advantage of labor-using economies

Exhibit B-11

	Bread	Coffee
Xenia	10	5
Zava	8	2

Answer: E
Diff: 2

56. Suppose Xenia and Zava produce only bread and coffee with their production possibilities schedule shown in Exhibit B-11. Which statement is true?
a. Zava has an absolute advantage in the production of both bread and coffee.
b. Zava has an absolute advantage only in the production of bread.
c. Xenia has an absolute advantage only in the production of bread.
d. Xenia has an absolute advantage only in the production of coffee.
e. Xenia has an absolute advantage in the production of both products.

Answer: D
Diff: 3

57. Given the production possibilities schedule in Exhibit B-11 for Xenia, one coffee costs _____.
a. 1.5 bread
b. 3.0 bread
c. 0.5 bread
d. 2.0 bread
e. 2.5 bread

Answer: D
Diff: 4

58. Which of the following statements is true of Exhibit B-11?
a. Xenia has a comparative advantage in the production of both goods.
b. Zava has a comparative advantage in the production of both goods.
c. Xenia has a comparative advantage only in the production of bread.
d. Xenia has a comparative advantage only in the production of coffee.
e. Zava has a comparative advantage only in the production of coffee.

Answer: B
Diff: 4

59. Which of the following statements is true of Exhibit B-11?
a. Xenia should produce both bread and coffee and not engage in trade with Zava.
b. Xenia should produce only coffee and trade with Zava for bread.
c. Xenia should produce only bread and trade with Zava for coffee.
d. Zava should produce only coffee and trade with Xenia for bread.
e. Zava should produce both goods and not engage in trade with Xenia.

Answer: E
Diff: 2

60. Which of the following statements is true of Exhibit B-11? Using domestic resources, one bread in Xenia costs
    a. 2 coffee
    b. 2 bread
    c. 10 coffee
    d. 5 coffee
    e. one-half coffee

Answer: E
Diff: 5

61. A factor of production is the same as
    a. the amount of a good produced
    b. the price of a good
    c. a profit of a firm
    d. an opportunity cost
    e. a resource

Answer: B
Diff: 2

62. The nonhuman factors of production are
    a. land and entrepreneurship
    b. capital and land
    c. capital and money
    d. money and land
    e. entrepreneurship and capital

Answer: D
Diff: 3

63. To an economist, slave labor is
    a. distasteful, but still the most productive because more output can be produced at a lower cost
    b. considered to be an unskilled labor resource
    c. a capital good, just as a piece of machinery
    d. not considered to be a labor resource because it involves coercion
    e. acceptable as long as a contract exists to address property rights

Answer: A
Diff: 2

64. A manufactured good used by labor to produce another good is
    a. capital
    b. a tangible form of a human resource
    c. a consumption good as long as it is used by labor
    d. a form of automation
    e. human capital

Answer: E
Diff: 3

65. All of the following are examples of capital *except*
    a. the robot used to help produce your car
    b. a computer used by your professor to write this exam
    c. the factory that produces the costume jewelry you buy
    d. the inventory of unsold goods at your local hardware store
    e. an uncut diamond that you discover in your backyard

Answer: B
Diff: 3

66. The silly clothes worn by a circus clown are an example of
    a. market inefficiency
    b. capital goods
    c. labor, if it is used by labor exclusively
    d. human capital
    e. entrepreneurship, if the clown becomes more creative wearing the clothes

Answer: D
Diff: 1

67. Human capital is
    a. money used by an entrepreneur to build a business
    b. another expression for slave labor
    c. a concept used by sociologists but not economists
    d. knowledge and skills acquired through education and training
    e. a robot

Answer: C
Diff: 2

68. Human capital can be increased by more
a. robots aiding workers
b. machinery produced with combinations of labor and capital
c. workers' education and experience
d. factories built to accommodate workers
e. oil discovered that can be used to power the capital that workers use

Answer: E
Diff: 2

69. Land includes all of the following *except*
a. a virgin forest
b. natural-state real estate
c. oil under the oceans
d. deposits of copper
e. an irrigation system

Answer: A
Diff: 5

70. Which of the following statements is *true*?
a. Land is a natural-state resource.
b. The quantity of land in planet earth can be varied.
c. Harvested trees are considered to be land.
d. Minerals and metals are not land resources.
e. The oceans are not considered to be land.

Answer: D
Diff: 2

71. The person who assumes the risks and uncertainties of business is
a. a manager of the business
b. an owner of the business
c. an excellent example of human capital
d. an entrepreneur
e. key to production, but not a factor of production

Answer: C
Diff: 3

72. The work of a firm's manager is
a. entrepreneurship
b. human capital
c. labor
d. more difficult and deserving of a higher reward than the work of labor
e. essentially to assume risk and uncertainty

Answer: B
Diff: 3

73. Entrepreneurs can delegate every one of the following tasks to labor *except*
a. hiring and training new employees
b. assuming business risk and uncertainty
c. supervision of the production process
d. researching ideas for new products
e. marketing the goods and services produced

Answer: E
Diff: 4

74. The various combinations of goods that can be produced by an economy using its available resources and technology efficiently is called
a. limits to scarcity
b. opportunity cost
c. limited production
d. capital accumulation
e. production possibilities

Answer: C
Diff: 3

75. A production possibilities curve shows the
a. dollar costs of producing two different goods
b. amounts of labor and capital needed to produce one good
c. various combinations of goods that can be produced
d. prices of different goods that are produced in an economy
e. inefficient use of available resources and technology

Answer: B
Diff: 2

76. Opportunity cost is measured by the
a. dollars paid for the goods
b. quantity of other goods given up
c. value of the resources used
d. technology used
e. units of opportunity gained by having the good

Answer: C
Diff: 3

77. Mikki works five hours at a video store the night before her economics exam. She earns $75, but her exam score is 10 points lower than it would have been had she stayed home and studied. Her opportunity cost of working is the
a. five hours she worked
b. $75 she earned
c. 10 points she lost on her exam
d. time she could have spent studying
e. zero, because she made an economic choice from among her several possibilities

Answer: E
Diff: 4

78. When the opportunity cost of producing carrots increases as more carrots are produced, then
a. no more carrots will be produced
b. resources are equally suited to the production of carrots and to other goods
c. the production possibilities curve shifts inward
d. the production possibilities curve shifts outward
e. the law of increasing costs is in effect

Answer: B
Diff: 3

79. What is the usual shape of the production possibilities curve?
a. upward-sloping
b. bowed-out from the origin
c. bowed-in from the origin
d. a straight-line, downward-sloping curve
e. U-shaped

Answer: A
Diff: 3

80. The production possibilities curve has a negative slope because
a. producing more of one good means producing less of the other
b. efficiency declines as more of one good is produced
c. consumers want to buy more of a good as its price decreases
d. it becomes harder to find workers as more goods are produced
e. the law of increasing costs is violated

Answer: C
Diff: 4

81. The bowed-out-from-the-origin shape of the production possibilities curve indicates that resources are
a. equally well-suited to production of both goods
b. not being used efficiently
c. not always of equal quality and some are better suited to the production of one type of good than others
d. increasing as more of one good is produced
e. of an increasingly inferior quality

Answer: D
Diff: 4

82. Adding more resources to production causes
a. a downward movement along the production possibilities curve
b. the production possibilities curve to shift in toward the origin
c. an upward movement along the production possibilities curve
d. the production possibilities curve to shift out from the origin
e. the production possibilities curve to become positively sloped

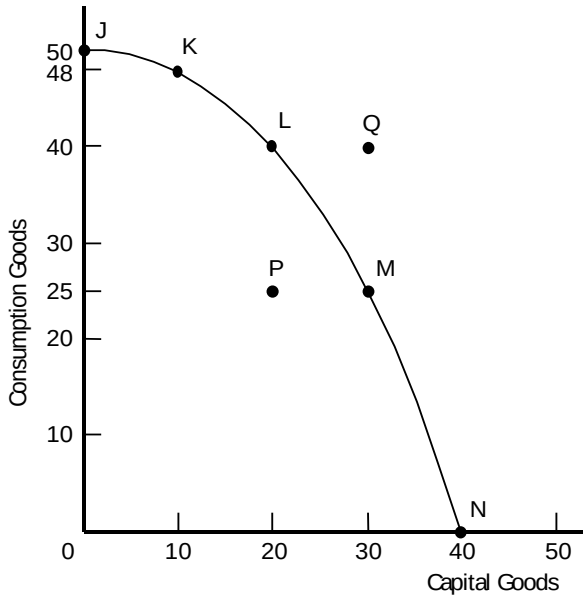
Answer: B
Diff: 4

83. If an economy keeps increasing its capital stock, then over time its production possibilities curve will
    a. remain unchanged but more capital goods will be produced
    b. shift outward
    c. shift inward
    d. disappear because scarcity will eventually be overcome
    e. remain unchanged, but production will occur outside (exterior to) the curve

Answer: E
Diff: 4

84. Compare two economies A and B that start with identical production possibilities curves. Both are fully employed. Economy A chooses to produce 6 consumption goods and 3 capital goods, while economy B chooses 4 consumption goods and 5 capital goods. This information suggests that
    a. economy A is producing less efficiently than economy B
    b. economy B is producing less efficiently than economy A
    c. economy A and economy B, although producing different combinations, grow at the same rate because they are both fully employed
    d. economy A's growth rate will be higher than economy B's
    e. economy B's growth rate will be higher than economy A's

Exhibit B-12



Answer: A
Diff: 1

85. If the Exhibit B-12 economy produces no capital goods, what is the maximum quantity of consumption goods it can produce?
    a. 50
    b. 48
    c. 40
    d. 25
    e. 0

Answer: C
Diff: 3

86. If the Exhibit B-12 economy moves from point L to point M, the opportunity cost of producing 10 more capital goods is
    a. 10 consumer goods
    b. 2 consumer goods
    c. 15 consumer goods
    d. 25 consumer goods
    e. 8 consumer goods

Answer: D
Diff: 2

87. The Exhibit B-12 economy will experience the highest economic growth if it chooses what point now?
a. J
b. K
c. M
d. N
e. P

Answer: E
Diff: 3

88. In Exhibit B-12, inefficient resource use is shown by which of the following points?
a. N
b. J
c. Q
d. L
e. P

Answer: C
Diff: 3

89. In Exhibit B-12, what can we conclude about point Q?
a. It is efficient.
b. It is inefficient.
c. It is unattainable.
d. It gives maximum future growth.
e. It shows underemployed resources.

Answer: B
Diff: 4

90. Poor economies may have difficulty growing because
a. their production possibilities curves slope upward instead of downward
b. they cannot cut back on their production of consumption goods to increase their production of capital goods
c. they have a solid consumption base already in place
d. their resource bases are fully developed
e. the law of increasing costs makes it hard to produce more goods

Answer: D
Diff: 1

91. An idea concerning production that eventually takes the form of a new applied technology is
a. the scientific method
b. robots
c. increasing cost of new technology
d. innovation
e. human capital

Answer: C
Diff: 3

92. Technological innovations will cause
a. production to increase but the production possibilities curve to remain unchanged
b. the production possibilities curve to shift to the left
c. the production possibilities curve to shift to the right
d. an economy to operate within its production possibilities curve
e. production at a point above or exterior to the production possibilities curve

Answer: E
Diff: 4

93. The French production possibilities curve shifts to the right when there is
a. a decrease in the French capital stock
b. a decrease in the French labor supply
c. high unemployment in France during the previous period
d. only consumer goods production in France during the previous period
e. technological innovation in the production of French goods

Answer: C
Diff: 4

94. The Irish production possibilities curve shifts to the left when there is
a. an increase in the Irish labor supply
b. innovation in the production of Irish goods
c. a civil war that destroys much of Ireland's resource base
d. unemployment among Irish workers
e. a choice among the Irish of more capital goods last period

Answer: D
Diff: 3

95. War can be expected to do all of the following things to an economy *except*
a. reduce the labor supply
b. reduce the capital stock
c. shift the production possibilities curve inward
d. reduce technological knowledge
e. reduce roads, bridges, and railroad networks

Answer: B
Diff: 4

96. According to the text, Japan lost much of its capital stock during World War II. It subsequently found that its
a. production possibilities curve had shifted to the left because it was unable to regain, even until today, its prewar output levels, having lost so much of its capital resources (Hiroshima and Nagasaki still haven't recovered from the 1945 atomic bomb attacks)
b. production possibilities curve, having shifted to the left, quickly recovered with the use of the most up-to-date technology
c. economy's productivity suffered irreversibly because the enormous loss of life created a loss of skilled, scientific, and technological knowledge
d. research efforts were hampered because victor countries refused to share scientific knowledge with it in retaliation for the war
e. production possibilities curve remained unchanged for two decades after the war because international trade was reduced

Answer: C
Diff: 3

97. A point inside a production possibilities curve reflects
a. the law of increasing costs
b. technological innovation
c. less than full use of resources and technology
d. economic efficiency
e. a way to increase future economic growth

Answer: E
Diff: 3

98. A point outside a production possibilities curve reflects
a. efficiency
b. specialization
c. inefficiency
d. unemployment
e. an unattainable choice

Answer: A
Diff: 1

99. Economists regard people who work below their potential as being
a. underemployed
b. unemployed
c. as economically efficient as possible
d. without human capital
e. employed, but a contributor to long-run unemployment

Answer: C
Diff: 2

100. The maximum possible production of goods and services generated by the fullest employment of the economy's resources is
a. impossible to achieve
b. an unrealistic goal seldom achieved
c. economic efficiency
d. a point above the production possibilities curve
e. possible only if the production possibilities curve shifts inward

Answer: D
Diff: 2

102. The idea that labor productivity depends on the degree of labor specialization is attributed to
a. Hiro Yakamaya
b. Stanley Jevons
c. J. S. Mill
d. Adam Smith
e. Robinson Crusoe

Answer: B
Diff: 2

103. In *The Wealth of Nations,* Adam Smith described the concept of division of labor and specialization by using an illustration of a visit to a
a. chicken farm
b. pin factory
c. bakery
d. blacksmith
e. town hall

Answer: E
Diff: 1

104. In a one-person Robinson Crusoe economy, labor specialization
a. can shift the production possibilities curve to the right
b. is already present because Crusoe produces everything himself
c. can decrease production of all types of goods
d. cannot increase production
e. is impossible

Answer: B
Diff: 2

105. Labor specialization can increase production primarily because workers
a. are now supervised more and so have to work harder
b. become proficient when they specialize in what they do best
c. have to work more hours to buy the things they want
d. engage in competitive, rather than cooperative, production
e. have to learn how to do every production-related task well

Answer: D
Diff: 3

106. Economy X has just one worker, while Economy Y has 100 workers. Both have the same capital and land resources and produce the same good. If labor specialization occurs in Economy Y, we would expect Economy Y to produce
a. exactly the same quantity of goods as Economy X
b. 100 times the quantity of goods as Economy X
c. less than 100 times the quantity of goods as Economy X
d. more than 100 times the quantity of goods as Economy X
e. more inefficiently than Economy X

Answer: E
Diff: 3

107. Applying the concept of labor specialization to international trade, if all countries specialize in producing what they do relatively best,
a. each country could become self-sufficient
b. international specialization and exchange will benefit the producers but harm the consumers
c. consumers are better off, but producers are worse off
d. inefficiency in production occurs because specialization, although allowing for more production, causes people to know less about the "big picture"
e. there will be more goods produced, exchanged, and consumed

Exhibit B-13

Production of Cheese and Eggs per 8-Hour Day

	Production of Cheese	Production of Eggs
United States	3	8
France	9	2

Answer: D
Diff: 3

108. In Exhibit B-13 (on the previous page), which of the following statements is true?
a. France has an absolute advantage in eggs.
b. France has a more efficient economy.
c. The United States has a more efficient economy.
d. The United States has a comparative advantage in eggs.
e. Both countries have a comparative advantage in eggs and cheese.

Answer: A
Diff: 4

109. In Exhibit B-13, what will generate the greatest combined output?
a. The United States specializes in eggs and France specializes in cheese.
b. France specializes in eggs and the United States specializes in cheese.
c. Both countries produce their own eggs and cheese.
d. Any combination of eggs and cheese will generate the same output.
e. The United States should produce all the eggs and cheese for both countries.

Answer: B
Diff: 4

110. The rule guiding international specialization of production is that a country should specialize in the production of the good
a. for which it has the highest opportunity cost
b. for which it has the lowest opportunity cost
c. that it most wants to consume
d. for which it has an absolute advantage
e. that it can produce with the least quantity of capital

Answer: D
Diff: 2

111. Which of the following are capital goods?
a. land and raw materials
b. all manufactured goods
c. automobiles and houses
d. factories and machinery
e. all goods consumed by both firms and households

Answer: A
Diff: 2

112. Which of the following is an example of a capital good?
a. an artificial Christmas tree used by a family year after year
b. a sweater worn by a sixth grade student
c. electricity used by a household to heat a swimming pool
d. a pencil used by a shopper making out a grocery list
e. a shovel used by a construction worker

Answer: C
Diff: 1

113. When economists use the term "factors of production," they mean
a. labor, capital, and money
b. labor, capital, land and money
c. labor, capital, land and entrepreneurship
d. labor, land, money and entrepreneurship
e. money and entrepreneurship

Answer: C
Diff: 1

114. Human capital refers to
a. manufactured goods that humans use in the production of goods
b. capital goods that enhance human abilities to produce goods
c. knowledge and skills acquired by labor through education and training
d. unskilled labor, as distinct from physical capital or skilled labor
e. labor and capital used together in production

Answer: E
Diff: 3

115. Human capital is associated with
a. a doctor charging lower-income patients less
b. a doctor paying rent for the office
c. a doctor’s stethoscope
d. a doctor’s knowledge of political events
e. a doctor’s skills in the operating room

Answer: C
Diff: 1

116. An entrepreneur
a. is an employee working in a factory
b. manages a factory
c. conceives of and starts a business
d. contracts to work for a specific price
e. estimates the risks and uncertainties of business

Answer: D
Diff: 2

117. The opportunity cost of your college education is
a. the cost of the textbooks you buy at the bookstore
b. the grades you receive in your courses
c. the actual dollar cost of your college education
d. your best alternative use of the money you spend for a college education
e. the income you earn while going to college

Answer: C
Diff: 3

118. The law of increasing costs indicates that
a. as more goods are produced, the dollar cost of producing those goods increases
b. no matter how many goods you produce, costs tend to increase
c. the opportunity cost of producing a good increases as more of the good is produced
d. although total cost may increase as you produce more of a good, the opportunity cost of producing additional units of the good actually decreases
e. because you are able to adopt greater division of labor when producing more goods, the opportunity cost of producing a good increases as less of the good is produced

Exhibit B-14

Production	
Consumption Good	Capital Good
10	0
9	1
7	2
4	3
0	4

Answer: A
Diff: 2

119. Consulting Exhibit B-14, the opportunity cost of increasing production of capital from 2 to 3 units is
a. 3 units of consumption goods
b. 4 units of consumption goods
c. 6 units of consumption goods
d. 7 units of consumption goods
e. 9 units of consumption goods

Answer: D
Diff: 2

120. In Exhibit B-14, the opportunity cost of producing the fourth unit of capital is
a. 0
b. 1 unit of consumption goods
c. 2 units of consumption goods
d. 4 units of consumption goods
e. there is not enough information to estimate the opportunity cost

Answer: D
Diff: 3

121. Which of the following causes the world's production possibilities curve to shift to the right?
a. a decline in the world's population due to AIDS
b. a shift from capital goods to consumer goods production
c. a civil war in Iraq, a major world producer of oil
d. the development of a new technology that improves labor's productivity
e. a worldwide recovery from a recession

Answer: C
Diff: 4

122. When Costa Rica's resources are not fully employed, then relative to its production possibilities curve, the point representing its production position is located
a. somewhere outside (exterior to) the curve
b. somewhere along the curve because it still has choice among those production possibilities combinations
c. somewhere inside (interior to) the curve
d. on a new production possibilities curve that is closer to the origin
e. on a new production possibilities curve that is further from the origin

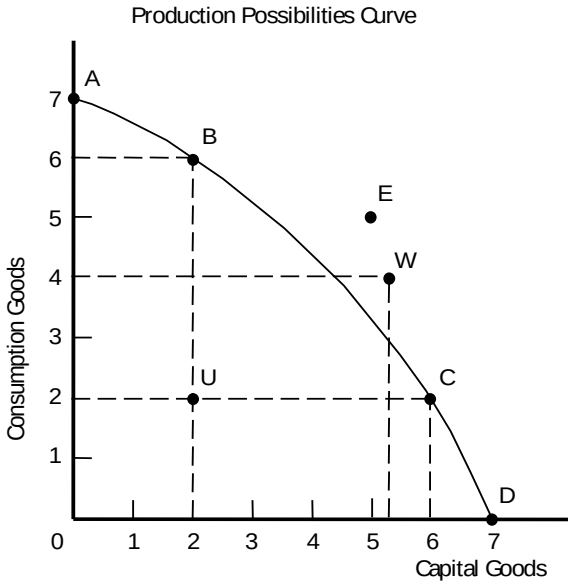
Answer: C
Diff: 3

123. An economy's production possibilities curve depicts different combinations of goods that can be
a. consumed by households in the economy since households are the suppliers of resources
b. consumed by firms in the economy since firms actually do the producing
c. produced in the economy with the available technology and resources
d. produced and consumed by firms since they are the sole source of production in the economy
e. bought and sold by both firms and households on the resource market

Answer: B
Diff: 5

124. The production possibilities curve encompasses all of the following concepts *except*
a. the law of increasing costs
b. unlimited wants
c. scarcity
d. opportunity cost
e. availability of resources

Exhibit B-15



Answer: D
Diff: 4

125. Which points on the production possibilities curve of Exhibit B-15 are attainable with the resources and technology available?
a. A, B, C, E, U
b. A, B, C, D, W
c. E, U, W
d. A, B, C, D, U
e. A, B, C, E

Answer: C
Diff: 2

126. Which points on the production possibilities curve of Exhibit B-15 are unattainable with the resources and technology available?
a. A, B, C, U
b. A, B, C, D, U
c. E, W
d. B, C, D, U
e. A, B, C, D

Answer: E
Diff: 3

127. Which points on the production possibilities curve of Exhibit B-15 are efficient production points?
a. A, B, C, U
b. A, B, C, D, U
c. E, U, W
d. B, C, D, U
e. A, B, C, D

Answer: C
Diff: 5

128. In Exhibit B-15, the opportunity cost in moving from point U to point B
a. is 4 units of consumption goods
b. is 2 units of capital goods
c. is zero units of capital goods
d. is 5 units of capital goods
e. cannot be estimated

Answer: A
Diff: 4

129. In Exhibit B-15, which points on the production possibilities curve represent full employment?
a. A, B, C, D
b. A, B, C, D, U
c. E, U, W
d. B, C, D, U
e. A, B, C, U

Answer: B
Diff: 2

130. The production possibilities curve depicts the combinations of two goods that can be
a. viewed as creating international specialization, one country producing one good, the other a second good
b. produced with a given level of technology and set of resources
c. consumed with a given quantity of resources and level of technology
d. produced with varying levels of unemployment of resources
e. produced with varying levels of unemployment and underemployment of resources

Answer: C
Diff: 1

131. Efficient production means producing
a. less output when costs are high and more output when costs are low
b. at the lowest possible cost regardless of the quantity of output
c. at any point on the production possibilities curve
d. no more than what society needs
e. in excess of what society needs

Answer: C
Diff: 3

132. The opportunity cost of producing a dining room table refers to the
a. quantity of money required to produce the table
b. quantity of money required to buy the table
c. quantity of other goods that must be given up to produce the table
d. quality of the table
e. use of lumber to produce the table

Answer: A
Diff: 1

133. The economic problem associated with the idea of scarcity is that
a. resources are limited but wants are insatiable
b. wants are limited to the available resources
c. resources are unlimited but wants are limited
d. both resources and wants are limited
e. both resources and wants are unlimited

Answer: B
Diff: 1

134. The quantity of one good that is given up to produce another is defined to be its
a. market value
b. opportunity cost
c. relative cost
d. absolute cost
e. nominal cost

Answer: C
Diff: 4

135. If the Mexican economy is using all of its available resources to produce goods, it means that the Mexican economy is producing at a point
a. located at one of the endpoints of the production possibilities curve
b. beyond (exterior to) its production possibilities curve
c. on its production possibilities curve
d. inside (interior to) its production possibilities curve
e. closer to the origin than its production possibilities curve

Answer: E
Diff: 1

136. Which of the following is *not* true about a production possibilities curve? It indicates
a. what combinations are attainable and unattainable
b. efficient combinations of the goods produced
c. which combinations are inefficient
d. which combinations of goods and services can be produced
e. the actual combination produced

Answer: D
Diff: 3

137. When technological progress occurs, the production possibilities curve
a. shifts inwards to the left
b. becomes flatter in one end and steeper at the other end
c. becomes steeper
d. shifts outwards to the right
e. does not change

Exhibit B-16

Production of Corn and Oil per 8-Hour Day

	Corn (millions of bushels)	Oil (millions of barrels)
Country A	160	80
Country B	120	120

Answer: A
Diff: 5

138. In Exhibit B-16, which of the following is true?
a. Country A has an absolute advantage in the production of corn.
b. Country B has an absolute advantage in the production of corn.
c. Country A has an absolute advantage in the production of oil.
d. Country B has an absolute advantage in the production of corn and oil.
e. Country A has an absolute advantage in the production of corn and oil.

Answer: D
Diff: 5

139. In Exhibit B-16, which of the following is true?
a. Country A has an absolute advantage in the production of oil.
b. Country B has an absolute advantage in the production of corn.
c. Country A has a relative advantage in the production of oil.
d. Country B has a relative advantage in the production of oil.
e. Both countries have an absolute advantage in the production of corn.

Answer: D
Diff: 5

140. In Exhibit B-16, which of the following is true?
a. Country A specializes in the production of oil.
b. Country B specializes in the production of corn.
c. Country A produces neither oil nor corn.
d. Country B specializes in the production of oil.
e. There are no gains from specialization.

Answer: A
Diff: 2

141. In Exhibit B-16, the opportunity cost to country A of producing only corn during in one day of production is
a. 80 barrels of oil
b. 120 barrels of oil
c. 160 barrels of oil
d. zero barrels of oil
e. 40 barrels of oil

Answer: B
Diff: 3

142. In Exhibit B-16, which of the following is true?
a. Country A needs fewer resources to produce a given amount of oil than country B.
b. Country A needs fewer resources to produce a given amount of corn than country B.
c. Country B has a lower opportunity cost in the production of corn.
d. Country A has a lower opportunity cost in the production of oil.
e. Both countries will produce the same amounts of both goods.

Exhibit B-17

Production of Computers and Oil per 8-Hour Day

	Computers (millions)	Oil (millions of barrels)
United States	10	100
Mexico	1	80

Answer: D
Diff: 2

143. In Exhibit B-17, which of the following is true?
a. Mexico only has an absolute advantage in the production of oil.
b. Mexico only has an absolute advantage in the production of computers.
c. Mexico has an absolute advantage in the production of both oil and computers.
d. The United States has an absolute advantage in the production of both oil and computers.
e. The United States only has an absolute advantage in the production of oil.

Answer: A
Diff: 3

144. In Exhibit B-17, which of the following is true?
a. The United States has the lower opportunity cost in the production of computers.
b. The United States has a higher cost in the production of oil.
c. The United States has the lower opportunity cost in the production of oil.
d. The United States has the higher cost in the production of computers.
e. The United States has the higher cost in the production of both oil and computers.

Answer: C
Diff: 5

145. In Exhibit B-17, the opportunity cost of producing one million computers in the United States and in Mexico is
a. 100 and 80 million barrels of oil, respectively
b. 10 and 8 million barrels of oil, respectively
c. 10 and 80 million barrels of oil, respectively
d. 10 and 80 million computers, respectively
e. 1 and 80 million barrels of oil, respectively

Answer: E
Diff: 5

146. In Exhibit B-17, if these countries decide to trade, which of the following is true?
a. The United States will specialize in the production of oil.
b. The United States will produce both goods.
c. Mexico will specialize in the production of oil and computers.
d. Mexico will specialize in computers and the United States will specialize in oil.
e. Mexico will specialize in the production of oil.

Answer: B
Diff: 5

147. In Exhibit B-17, which of the following is true about specialization?
a. The United States will specialize in the production of oil.
b. The United States will specialize in the production of computers.
c. Mexico will specialize in the production of oil and computers.
d. Mexico will specialize in computers and the United States will specialize in oil.
e. Mexico will specialize in the production of computers.

Answer: E
Diff: 1

148. When economists talk about innovation, they refer to
a. the relationship between growth and employment
b. one of the basic problems in economics
c. the relationship between technology and scarcity
d. the relationship between growth and scarcity
e. ideas that eventually take the form of new applied technology

Answer: D
Diff: 2

149. Which of the following factors causes economic growth?
a. a decline in capital goods production
b. a loss of resources
c. the production of more scarce goods
d. a technological improvement
e. the production of more consumer goods

Answer: E
Diff: 3

150. Which of the following is *not* an example of a capital good?
a. a pencil sharpener in an office
b. an oven in a pizza restaurant
c. a sawing machine at a local lumber yard
d. a computer in a business
e. a teacher's ability to speak two languages

Answer: D
Diff: 2

151. The opportunity cost associated with increasing U.S. national security is complicated by the fact that
a. national security is not a good
b. there is no trade-off between national security and other goods
c. national security cannot be produced
d. U.S. national security depends upon national security expenditures of other nations
e. war is an inherent human activity

Answer: A
Diff: 5

152. The fact that U.S. national security depends upon what other nations spend on their national security means that
a. the U.S. may end up with less national security even if it devotes more resources to national security
b. the U.S. should devote fewer resources to national security
c. the U.S. should devote even more resources to national security than it considers desirable
d. the U.S. can never be secure
e. peace is an impossible dream

Answer: B
Diff: 5

153. In the context of production possibilities curve analysis, the purpose of a state-supported terrorist attack is to
   a. destroy as many resources as possible of a targeted nation in order to enhance its own security.
   b. shift the curve inward of the targeted nation by undermining its confidence to defend itself
   c. shift the targeted nation's possibilities curve to the right in order to increase the opportunity cost of making a first striker
   d. eliminate the targeted nation's ability to counterattack in case of war
   e. force the targeted population to decrease its own security expenditures

Answer: E
Diff: 4

154. Shifting resources from other goods to security goods may not increase a nation's national security if
   a. the law of increasing opportunity cost is not applicable
   b. the economy is already at full employment
   c. the economy is not at full employment
   d. national security is already at its maximum
   e. other nations react to the shift by increasing their own spending on national security

Answer: A

Diff: 4

155. "Strike first" or initiating a war may be the appropriate strategy for a nation if
   a. it has a national security advantage which it believes will be eroded in time
   b. it already faces a national security disadvantage vis-à-vis an adversary
   c. it wants to shift its production possibilities curve to the right
   d. it wants to shift its production possibilities curve to the left
   e. it wants to shift its adversary's production possibilities to the right

ESSAY

1. a. Give an economics-based explanation for why class attendance is usually higher on the first day of class and on the days before major exams.
   b. Describe some policies that your instructor could implement to reduce absences and give an economics-based explanation of why they would have the desired effect.

   SOLUTION:

   a. The opportunity cost of missing class on the first day is relatively high since instructors usually provide useful information on the first day (for instance, information about grading policies and exam schedules). Similarly, the opportunity cost of missing class on the days before major exams is relatively high because instructors often spend time reviewing or providing useful exam information.
   b. Some possible policies to reduce absences are to: assign extra credit or a grade for attendance, penalize students for missing classes, or give pop quizzes. These policies promote attendance by raising the opportunity cost of missing class.

2. Some students hate when their instructors unexpectedly cancel class, but most students love the extra hour or two it gives them. Imagine how you would feel if you showed up for your next class and found a note on the door canceling the lecture.
   a. Make a list of at least five things you could do with the extra time.
   b. Which one thing from the list would you actually choose to do?
   c. Use your answer in part b to state the opportunity cost of attending your next class.

   SOLUTION:

   a. Answers will vary.
   b. Answers will vary.
   c. The opportunity of attending the next class is the activity stated in part b.

3. A clean environment is healthier than a polluted environment. Use the law of increasing costs to explain why even environmentalists might not advocate laws banning all pollution.

   SOLUTION:

   Incremental improvements to the environment become increasingly expensive in terms of everything else that we have to give up.

4. Diamonds are nature's hardest substance. Classify each of the following diamonds as land, labor, capital, entrepreneurship, or none of the above. Explain your choice.
   a. an unmined diamond
   b. a diamond in DeBeers' vault (DeBeers is the world's biggest diamond mining company.)
   c. a diamond in a jeweler's display case at the shopping mall
   d. a diamond on your or your fiancée's finger
   e. an industrial grade diamond in your dentist's drill
   f. the diamonds in the blade that the highway department uses to cut concrete

   SOLUTION:

   a. land, because the diamond is in its natural state
   b. capital, because it's part of DeBeers' inventory
   c. capital, because it's part of the jeweler's inventory
   d. none of the above, because it's a good that has been consumed by a household, not a resource
   e. capital, because it's being used in the production of your dentist's services
   f. capital, because the highway department is using it to produce its output (roads, road repair)

5. Imagine an economy that produces capital goods and consumption goods. What will happen to its production possibilities curve if some of its existing capital stock wears out and is not replaced? How will your answer differ if more than enough capital is produced to replace the capital that wears out?

   SOLUTION:

   With less capital (assuming no growth in other resources or technology), this economy will not be able to produce as much as it could before the capital wore out. The production possibilities curve will shift inward, towards the origin. With more capital (assuming no change in other resources or technology), this economy will be able to produce more than it initially could. Its production possibilities curve will shift outward, away from the origin.

6. The Taxpayer Relief Act of 1997 created the Hope Higher Education Scholarship program, which provides a maximum of $1,500 in tax credits for the first two years of college for families with adjusted gross incomes of less than $100,000. Which factor(s) of production will change as a result of this program? Explain how this program is expected to affect the U.S. production possibilities curve.

   SOLUTION:

   Capital (human capital, to be exact) will increase. This program reduces the cost of attending college. As individuals invest in more human capital, the production possibilities curve will shift outward. The United States will be able to produce more.

7. Sonny and his girlfriend are stranded on an island. Sonny can produce 8 cups of berries per day, or 3 ounces of honey. His girlfriend can produce 10 cups of berries per day, or 6 ounces of honey. Explain who has the absolute advantage in berry production and who has the absolute advantage in honey production. Explain why the person who has the absolute advantage in berry production should not produce berries.

   SOLUTION:

   His girlfriend has the absolute advantage in both berries and honey production, because she can produce more of each than Sonny can. However, Sonny should specialize in berry production because he has the lower opportunity cost associated with berry production. He gives up the opportunity to produce only 0.375 ounces of honey when he produces a cup of berries, while his girlfriend gives up the opportunity to produce 0.6 ounces of honey when she produces a cup of berries.

8. In economic terms associated with employment and unemployment, what would cause an economy to operate inside its production possibilities curve? What would have to change to move it to a point on its production possibilities curve?

   SOLUTION:

   Unemployment or underemployment would keep an economy from operating on its production possibilities curve. As the economy reduces its unemployment rate and gets rid of all underemployment, it will move toward full employment and will move to a point on the production possibilities curve.

9. "Shifting resources from the production of other goods to the production of national security goods may not increase a nation's national security." Explain.

   SOLUTION:

   National security is a good unlike a cucumber. If you shift more resources to the production of cucumbers, you obtain more cucumbers. If your neighbor produces cucumbers as well, you still have the ones you produced. That is to say, how many cucumbers you end up with has nothing whatsoever to do with choices other people make. Not so with national security. If a nation produces more national security goods it gets more security only if other nations do not react by producing more security goods of their own. If they produce more, the added security produced initially is lost. That's because one's own security depends on what others do. If an adversarial nation arms itself to the teeth, you're national security is lessened even though you did not reallocate any resources away from security goods. It complicates matters, doesn't it?