Exam
Name

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

## 1) Scarcity <br> 1)

A) can be eliminated by rationing products.
B) is a bigger problem in market economies than in socialist economies.
C) stems from the incompatibility between limited resources and unlimited wants.
D) can be overcome by discovering new resources.
2) In 2002, BMW made a tactical decision to use a robot to attach the gearbox to the engines of its vehicles instead of using two workers as it had done previously. The robot method had a higher cost but installed the gearbox in exactly the right position. In making this decision, BMW 2) $\qquad$
A) faced a tradeoff between higher cost and lower precision (in installing the gearbox in exactly the right position).
B) adopted a negative technological change because it replaced workers with robots.
C) eroded some of its competitiveness in the luxury car market because of its increased cost of production.
D) faced no tradeoffs because the robot method increased efficiency.
3) The principle of opportunity cost is that
3) $\qquad$
A) the cost of production varies depending on the opportunity for technological application.
B) the economic cost of using a factor of production is the alternative use of that factor that is given up.
C) taking advantage of investment opportunities involves costs.
D) in a market economy, taking advantage of profitable opportunities involves some money cost.
4) The production possibilities frontier shows 4) $\qquad$
A) what an equitable distribution of products among citizens would be.
B) the maximum attainable combinations of two products that may be produced in a particular time period with available resources.
C) what people want firms to produce in a particular time period.
D) the various products that can be produced now and in the future.
5) The production possibilities frontier model shows that5) $\qquad$
A) a market economy is more efficient in producing goods and services than is a centrally planned economy.
B) economic growth can only be achieved by free market economies.
C) if all resources are fully and efficiently utilized, more of one good can be produced only by producing less of another good.
D) if consumers decide to buy more of a product its price will increase.
6) The production possibilities frontier model assumes all of the following except 6) $\qquad$
A) labor, capital, land and natural resources are fixed in quantity.
B) the economy produces only two products.
C) the level of technology is fixed and unchanging.
D) any level of the two products that the economy produces is currently possible.
7) The attainable production points on a production possibility curve are 7) $\qquad$
A) the horizontal and vertical intercepts.
B) the points outside the area enclosed by the production possibilities frontier.
C) the points along the production possibilities frontier.
D) the points along and inside the production possibility frontier.
8) The unattainable points in a production possibilities diagram are
8) $\qquad$
A) the points of the horizontal and vertical intercepts.
B) the points along the production possibilities frontier.
C) the points within the production possibilities frontier.
D) the points outside the production possibilities frontier.

Figure 2-1

9) Refer to Figure 2-1. Point $A$ is
9) $\qquad$
A) the equilibrium output combination.
B) technically efficient.
C) inefficient in that not all resources are being used.
D) unattainable with current resources.
10) Refer to Figure 2-1. Point $B$ is
10) $\qquad$
A) technically efficient.
B) unattainable with current resources.
C) the equilibrium output combination.
D) inefficient in that not all resources are being used.
11) Refer to Figure 2-1. Point $C$ is
11) $\qquad$
A) is the equilibrium output combination.
B) inefficient in that not all resources are being used.
C) unattainable with current resources.
D) technically efficient.
12) In a production possibilities frontier model, a point inside the frontier is
12) $\qquad$
A) allocatively inefficient.
B) allocatively efficient.
C) productively efficient
D) productively inefficient.
13) Bella can produce either a combination of 60 silk roses and 80 silk leaves or a combination of 70 silk roses and 55 silk leaves. If she now produces 60 silk roses and 80 silk leaves, what is the opportunity cost of producing an additional 10 silk roses? 13) $\qquad$
A) 25 silk leavesB) 2.5 silk leaves
C) 10 silk leaves D) 55 silk leaves
14) If the production possibilities frontier is linear, then 14)
A) opportunity costs are increasing as more of one good is produced.
B) opportunity costs are decreasing as more of one good is produced.
C) it is easy to efficiently produce output.
D) opportunity costs are constant as more of one good is produced.

Figure 2-2


Figure 2-2 above shows the production possibilities frontier for Mendonca, an agrarian nation that produces two goods, meat and vegetables.
15) Refer to Figure 2-2. What is the opportunity cost of one pound of vegetables? $\qquad$
A) ${ }^{1 \frac{1}{3}}$ C) 1.2 pounds of meat
$\frac{3}{4}$
pounds of meat
D) 12 pounds of meat
16) Refer to Figure 2-2. What is the opportunity cost of one pound of meat?
16) $\qquad$
$\frac{3}{4}$
A) pounds of vegetables
B) 16 pounds of vegetables
C) $1 \frac{1}{3}$
C) ${ }^{3}$ pounds of vegetables
D) 1.6 pounds of vegetables
17) Refer to Figure 2-2. Suppose Mendonca is currently producing 60 pounds of vegetables per period. How much meat is it also producing, assuming that resources are fully utilized? $\qquad$
A) 75 pounds of meat
B) 45 pounds of meat
C) 100 pounds of meat
D) 80 pounds of meat
18) Refer to Figure 2-2. The linear production possibilities frontier in the figure indicates that
18) $\qquad$
A) Mendonca has a comparative advantage in the production of vegetables.
B) the tradeoff between meat and vegetables is constant.
C) Mendonca has a comparative disadvantage in the production of meat.
D) it is progressively more expensive to produce meat.
19) A production possibilities frontier with a bowed outward shape indicates
19) $\qquad$
A) decreasing opportunity costs as more and more of one good is produced.
B) increasing opportunity costs as more and more of one good is produced.
C) the possibility of inefficient production.
D) constant opportunity costs as more and more of one good is produced.
20) Increasing opportunity cost along a bowed out production possibilities frontier occurs because
20) $\qquad$
A) some factors of production are not equally suited to producing both goods or services.
B) of inefficient production.
C) of the scarcity of factors of production.
D) of ineffective management by entrepreneurs.
21) The slope of a production possibilities frontier
21) $\qquad$
A) measures the opportunity cost of producing one more unit of a good.
B) is always varying.
C) has no economic relevance or meaning.
D) is always constant.
22) Increasing marginal opportunity cost implies that 22) $\qquad$
A) the more resources already devoted to any activity, the payoff from allocating yet more resources to that activity increases by progressively smaller amounts.
B) the law of scarcity.
C) that rising opportunity costs makes it inefficient to produce beyond a certain quantity.
D) the more resources already devoted to any activity, the benefits from allocating yet more resources to that activity decreases by progressively larger amounts.
23) If opportunity costs are constant, the production possibilities frontier would be graphed as 23) $\qquad$
A) a ray from the origin.
B) a negatively sloped curve bowed in toward the origin.
C) a negatively sloped straight line.
D) a positively sloped straight line.

Figure 2-3

24) Refer to Figure 2-3. Carlos Vanya grows tomatoes and strawberries on his land. His land is equally suited for growing either fruit. Which of the graphs in Figure 2-3 represent his production possibilities frontier?
24) $\qquad$
A) Graph A
B) Graph B
C) Graph C
D) Either Graph A or Graph B
E) Either graph B or Graph C
25) Refer to Figure 2-3. Carlos Vanya grows tomatoes and strawberries on his land. A portion of his land is more suitable for growing tomatoes and the other portion is better suited for strawberry cultivation. Which of the graphs in Figure 2-3 represent his production possibilities frontier? 25) $\qquad$
A) Graph A
B) Graph B
C) Graph C
D) either Graph A or Graph B
E) either Graph B or Graph C
26) An outward shift of a nation's production possibilities frontier can occur due to
26) $\qquad$
A) a reduction in unemployment.
B) a change in the amounts of one good desired.
C) an increase in the labor force.
D) a natural disaster like a hurricane or bad earthquake.
27) An outward shift of a nation's production possibilities frontier represents
27) $\qquad$
A) an impossible situation.
B) a situation in which a country produces more of one good and less of another.
C) economic growth.
D) rising prices of the two goods on the production possibilities frontier model.
28) Economic growth is represented on a production possibilities frontier model by the production possibility frontier 28) $\qquad$
A) becoming flatter.
B) becoming steeper.
C) shifting inward.
D) shifting outward.
29) Without an increase in the supplies of factors of production, how can a nation achieve economic growth?
A) by producing more high- value goods and less of low-value goods
B) by lowering the prices of factors of production
C) by increasing the prices of factors of production
D) through technological advancement which enables more output with the same quantity of resources
30) Which of the following would shift a nation's production possibilities frontier inward?
30) $\qquad$
A) a law requiring workers to retire at age 50
B) discovering a cheap way to convert sunshine into electricity
C) an increase in the unemployment rate
D) producing more capital equipment

Figure 2-4


Figure 2-4 shows various points on three different production possibilities frontiers for a nation.
31) Refer to Figure 2-4. A movement from $X$ to $Y$
31) $\qquad$
A) is the result of advancements in food production technology only, with no change in the technology for plastic production.
B) is the result of advancements in plastic production technology only, with no change in food production technology.
C) could occur because of an influx of immigrant labor.
D) could be due to a change in consumers' tastes and preferences.
32) Refer to Figure 2-4. A movement from $Y$ to $Z$
32) $\qquad$
A) could occur because of general technological advancements.
B) represents an increase in the demand for plastic products.
C) is the result of advancements in food production technology.
D) is the result of advancements in plastic production technology.
33) Refer to Figure 2-4. Consider the following events:
a. an increase in the unemployment rate
b. a decrease in a nation's money supply
c. a war that kills a significant portion of a nation's population

Which of the events listed above could cause a movement from $Y$ to $W$ ? 33) $\qquad$
A) a and b only
B) a only
C) c only
D) a and conly
E) a,b and c
34) Refer to Figure 2-4. Consider the following movements:
a. from point $V$ to point $W$
b. from point $W$ to point $Y$
c. from point $Y$ to point $Z$

Which of the movements listed above represents economic growth?
34) $\qquad$
A) b only
B) b and c only
C) a only
D) a, b, and c
35) Refer to Figure 2-4. Consider the following events:
a. a decrease in the unemployment rate
b. general technological advancement
c. an increase in consumer wealth

Which of the events listed above could cause a movement from $V$ to $W$ ? 35) $\qquad$
A) a, b, and c
B) a and b only
C) band conly
D) a only
36) Refer to Figure 2-4. Consider the following events:
a. a reduction in the patent protection period to no more than 2 years
b. a war that destroys a substantial portion of a nation's capital stock
c. the lack of secure and enforceable property rights system

Which of the events listed above could cause a movement from $W$ to V ? 36) $\qquad$
A) band conly
B) a, b, and c
C) a only
D) a and c only
E) a and b only
37) The Great Depression of the 1930s with a large number of workers and factories unemployed would be represented in a production possibilities frontier graph by
37) $\qquad$
A) a point outside the frontier.
B) a point on the frontier.
C) a point inside the frontier.
D) an intercept on either the vertical or the horizontal axis.
38) Suppose there is some unemployment in the economy and society decides that it wants more of one good. Which of the following statements is true?38) $\qquad$
A) It will have to increase resource supplies.
B) It can increase output without giving up another good by employing more resources.
C) It is not possible to achieve this unless technology advances.
D) It will have to give up production and consumption of some other good.
39) If society decides it wants more of one good and all resources are fully utilized, then 39) $\qquad$
A) more unemployment will occur.
B) it has to give up some of another good and incur some opportunity costs.
C) additional resource supplies will have to be found.
D) it is unable to do this unless technology advances.
40) According to the production possibility model, if more resources are allocated to the production of physical and human capital, then all of the following are likely to happen except
40) $\qquad$
A) the production possibilities frontier will be shift outward in the future
B) future economic growth is enhanced.
C) the country's total production will fall.
D) fewer goods will be produced for consumption today.

41) Refer to Figure 2-5. If the economy is currently producing at point $Y$, what is the opportunity cost of moving to point $W$ ? 41) $\qquad$
A) 16 million tons of paper
B) zero
C) 2 million tons of steelD) 9 million tons of paper
42) Refer to Figure 2-5. If the economy is currently producing at point $W$, what is the opportunity cost of moving to point $X$ ? 42) $\qquad$
A) 3 million tons of steelB) 9 million tons of paper
C) 19 million tons of steel
D) 5 million tons of paper
43) In a report made to the US Congress in 2001, the National Academy of Sciences cautioned that if fuel economy encourages the production of smaller and lighter cars, "Some additional traffic fatalities would be expected." This statement suggests that 43) $\qquad$
A) US auto manufacturers are more concerned about producing fuel efficient cars to compete with their Japanese and South Korean rivals than about consumer safety.
B) there is a tradeoff between safety and fuel economy.
C) society should value fuel economy more highly than consumer safety because of the long term environment benefits generated by less gasoline use.
D) society should value safety more highly than fuel economy.
44) Suppose your expenses for this term are as follows: tuition: $\$ 5,000$, room and board: $\$ 3,000$, books and other educational supplies: $\$ 500$. Further, during the term, you can only work part-time and earn $\$ 4,000$ instead of your full-time salary of $\$ 10,000$. What is the opportunity cost of going to college this term, assuming that your room and board expenses would be the same even if you did not go to college?
44) $\qquad$
A) $\$ 8,500$
B) $\$ 5,500$
C) $\$ 11,500$
D) $\$ 14,500$
45) The opportunity cost of taking a semester-long economics class is
45) $\qquad$
A) the value of the time spent in the classroom.
B) zero because there is no admission charged if you are enrolled in the course.
C) the knowledge and enjoyment you receive from attending the class.
D) equal to the highest value of an alternative use of the time and money spent on the class.
E) the cost of tuition and fees only.


German auto producer, BMW currently produces two types of automobiles sports utility vehicles (SUVs) and coupes in its US plant. Since it opened in 1994, the company had made and continues to make several strategic production decisions. Figure 2-6 shows changes to its production possibilities frontier in response to some of these production strategies.
46) Refer to Figure 2-6. Between 1995 and 2003, worker productivity increased so that the total number of vehicles produced increased as the company added more machinery, workers and changed the layout of the factory. This is best represented by the
46) $\qquad$
$\begin{array}{ll}\text { A) movement from } G \text { to } H \text { in Graph B. } & \text { B) movement from } E \text { to } F \text { in Graph A. } \\ \text { C) movement from } G \text { to } H \text { in Graph C. } & \text { D) movement from } J \text { to } H \text { in Graph B. }\end{array}$
47) Refer to Figure 2-6. In response to changing consumer demands, BMW has cut back on the production of coupes and increased its production of SUVs. This strategy is best represented by $\qquad$
A) movement from $K$ to $L$ in Graph C.
B) movement from $E$ to $F$ in Graph A.
C) movement from $J$ to $H$ in Graph B.
D) movement from $G$ to $H$ in Graph B.
48) Refer to Figure 2-6. In 2005, the company had to shut down a portion of its facility as it worked on remodeling the facility to merge two of its separate assembly lines in preparation for the production of a new model. The production decision to shut down temporarily will result in a
48) $\qquad$
A) movement from $J$ to $H$ in Graph B.
B) movement from $E$ to $F$ in Graph A.
C) movement from $G$ to $H$ in Graph B.
D) movement from $K$ to $L$ in Graph C.
49) Hurricane Katrina which hit the Gulf Coast region in August 2005, resulted in massive flooding which destroyed large sections of New Orleans. Suppose prior to this event, New Orleans was producing an output combination given by a point on its production possibilities frontier. How did the hurricane affect its production possibilities frontier?
$\qquad$
A) The production possibilities frontier no longer exists.
B) The production possibilities frontier does not shift but there is a movement from a point on the frontier to a point inside the frontier.
C) New Orleans' output combination moved from a point on the frontier to a point given by one of the intercepts.
D) The production possibilities frontier shifts inwards.

TRUE/FALSE. Write 'T' if the statement is true and ' $F$ ' if the statement is false.
50) An increase in the unemployment rate may be represented as a movement from a point on the production possibilities frontier to a point inside the frontier. 50) $\qquad$
51) If a country is producing efficiently and is on the production possibilities frontier, the only way to produce more of one good is to produce less of the other.
51) $\qquad$
52) Consider a country that produces only two goods: pineapples and tractors. Suppose, it is possible for this country to increase its production of pineapples without producing fewer tractors, then its current output combination is inefficient.
52) $\qquad$
53) Any output combination outside a production possibility frontier is associated with unused or underutilized resources.53) $\qquad$
54) An increase in population shifts the production possibility frontier inwards over time.54) $\qquad$
55) If additional units of a good could be produced at a constant opportunity cost, the production possibility frontier would be bowed outward (concave). 55) $\qquad$
56) On a diagram of a production possibility frontier, opportunity cost is represented by the slope of the production possibility frontier 56) $\qquad$
57) To increase gas mileage, automobile manufacturers make cars small and light. Large cars absorb more of the impact of an accident than small cars but yield lower gas mileage These facts suggest that there exists a negative relationship between safety and gas mileage. 57) $\qquad$

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.
58) a. Draw a production possibilities frontier for a country that produces two goods, wine and cheese. Assume that resources are not equally suited to both tasks.
b. Define opportunity costs.
c. Use your production possibilities frontier graph to demonstrate the principle of opportunity costs.

ESSAY. Write your answer in the space provided or on a separate sheet of paper.
59) Table 2-1

| Possible Output <br> Combinations | Apples <br> (thousands of <br> pounds) | Pear <br> (thousands of <br> pounds) |
| :---: | :---: | :---: |
| A | 70 | 0 |
| B | 60 | 20 |
| C | 50 | 36 |
| D | 40 | 48 |
| E | 30 | 56 |


| F | 20 | 60 |
| :---: | :---: | :---: |
| G | 10 | 63 |
| H | 0 | 65 |

Refer to Table 2-1. The Fruit Farm produces only apples and pears. The table above shows the maximum possible output combinations of the two fruits using all resources and currently available technology.
a. Graph The Fruit Farm's production possibilities frontier. Put apples on the horizontal axis and pears on the vertical axis. Be sure to identify the output combination points on your diagram.
b. Suppose The Fruit farm is currently producing at point $D$. What is the opportunity cost of producing an additional 8,000 pounds of pears?
c. Suppose The Fruit farm is currently producing at point $D$. What happens to the opportunity cost of producing more and more pears? Does it increase, decrease or remain constant? Explain your answer.
d. Suppose The Fruit farm is currently producing at point G. What happens to the opportunity cost of producing more and more apples? Does it increase, decrease or remain constant? Explain your answer.
e. Suppose Fruit farm is plagued by the apple maggot infestation which destroys apple trees but not pears. Show in a graph what happens to its PPF.

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.
60) You have an absolute advantage whenever you
60) $\qquad$
A) can produce something at a lower opportunity cost than others.
B) are better educated than someone else.
C) prefer to do one particular activity.
D) can produce more of something than others with the same resources.

Table 2-2

|  | George | Jack |
| :--- | :---: | :---: |
| Lawns Mowed | 10 | 6 |
| Gardens <br> Cultivated | 5 | 4 |

Table 2-2 shows the output per day of two gardeners, George and Jack. They can either devote their time to mowing lawns or cultivating gardens.
61) Refer to Table 2-2. Which of the following statements is true? 61) $\qquad$
A) Jack has an absolute advantage in garden cultivating and George in lawn mowing.
B) George has an absolute advantage in both tasks.
C) Jack has an absolute advantage in both tasks.
D) Jack has an absolute advantage in lawn mowing and George in garden cultivating.
62) Refer to Table 2-2. What is Jack's opportunity cost of mowing a lawn?
A) half a garden cultivated
B) two-thirds of a garden cultivated
$\begin{array}{ll}\text { C) two lawns mowed } & \text { D) one and a half lawns mowed }\end{array}$
63) Refer to Table 2-2. What is Jack's opportunity cost of cultivating a garden?
A) one and a half lawns mowed B) half a garden cultivated
C) two lawns mowed
D) two-thirds of a garden cultivated.
64) Refer to Table 2-2. What is George's opportunity cost of mowing a lawn?
64) $\qquad$
62) $\qquad$
63) $\qquad$
3)
C) one and a half lawns mowed D) two lawns mowed
65) Refer to Table 2-2. What is George's opportunity cost of cultivating a garden? 65) $\qquad$
A) one and a half lawns mowed B) half a garden cultivated
C) two lawns mowed
D) two-thirds of a garden cultivated
66) Refer to Table 2-2. Which of the following statements is true? 66) $\qquad$
A) Jack has a comparative advantage in garden cultivating and George in lawn mowing.
B) George has a comparative advantage in both tasks.
C) Jack has a comparative advantage in lawn mowing and George in garden cultivating.
D) Jack has a comparative advantage in both tasks.
67) Comparative advantage means 67) $\qquad$
A) compared to others you are better at producing a product.
B) the ability to produce a good or service at a higher opportunity cost than any other producer.
C) the ability to produce more of a product with the same amount of resources than any other producer.
D) the ability to produce a good or service at a lower opportunity cost than any other producer.
68) Specializing in the production of a good or service in which one has a comparative advantage enables a country to do all of the following except
68) $\qquad$
A) increase the variety of products that it can consume with no increase in resources.
B) produce a combination of goods that lie outside its own production possibilities frontier.
C) engage in mutually beneficial trade with other nations.
D) consume a combination of goods that lie outside its own production possibilities frontier.
69) For each watch that Switzerland produces, it gives up the opportunity to make 50 pounds of chocolate. Germany can produce 1 watch for every 100 pounds of chocolate it produces. Which of the following is true about the comparative advantage between the two countries? 69) $\qquad$
A) Germany has the comparative advantage in watches and chocolate.
B) Germany has the comparative advantage in watches.
C) Switzerland has the comparative advantage in watches.
D) Switzerland has the comparative advantage in chocolate.

Figure 2-7


Figure 2-7 shows the production possibilities frontiers for Pakistan and Indonesia. Each country produces two goods, cotton and cashews.
70) Refer to Figure 2-7. What is the opportunity cost of producing 1 bolt of cloth in Pakistan? $\qquad$
A) $13 / 5$ pounds of cashews
B) $5 / 8$ pounds of cashews
C) 150 pounds of cashews
D) $3 / 8$ pounds of cashews
71) Refer to Figure 2-7. What is the opportunity cost of producing 1 bolt of cloth in Indonesia?
71) $\qquad$
A) $5 / 8$ pounds of cashews
B) 120 pounds of cashews
C) $22 / 3$ pounds of cashews
D) $3 / 8$ pounds of cashews
72) Refer to Figure 2-7. What is the opportunity cost of producing 1 pound of cashews in Pakistan?
72) $\qquad$
A) $3 / 8$ bolts of cotton
B) 240 bolts of cotton
C) $5 / 8$ bolts of cotton
D) $13 / 5$ bolts of cotton
73) Refer to Figure 2-7. What is the opportunity cost of producing 1 pound of cashews in Indonesia?
73) $\qquad$
A) $22 / 3$ bolts of cotton
B) 320 bolts of cotton
C) $3 / 8$ bolts of cotton
D) $5 / 8$ bolts of cotton
74) Refer to Figure 2-7. Which country has a comparative advantage in the production of cotton? 74) $\qquad$
$\begin{array}{ll}\text { A) neither country } & \text { B) They have equal productive abilities. }\end{array}$
C) Indonesia
D) Pakistan
75) Refer to Figure 2-7. Which country has a comparative advantage in the production of cashews?
75) $\qquad$
$\begin{array}{ll}\text { A) Pakistan } & \text { B) neither country }\end{array}$
C) They have equal productive abilities. D) Indonesia
76) Refer to Figure 2-7. If the two countries have the same amount of resources and the same technological knowledge, which country has an absolute advantage in the production of cotton? 76) $\qquad$
A) They have the same advantage.
B) Pakistan
C) Indonesia
D) cannot be determined.
77) Individuals who have never been the best at doing anything 77) $\qquad$
A) cannot have a comparative advantage in producing any product.
B) can still have a comparative advantage in producing some product.
C) must have an absolute advantage in at least ones task.
D) perform all tasks at a higher opportunity cost than others.

Table 2-3

|  | One Digital <br> Camera | Wheat (per pound) |
| :--- | :---: | :---: |
| China | 100 hours | 4 hours |
| South Korea | 60 hours | 3 hours |

Table 2-3 shows the number of labor hours required to produce a digital camera and a pound of wheat in China and South Korea.
78) Refer to Table 2-3. Does either China or South Korea have an absolute advantage and if so, in what product?
A) China has an absolute advantage in wheat.
B) South Korea has an absolute advantage in wheat.
C) China has an absolute advantage in digital cameras.
D) South Korea has an absolute advantage in both products.
79) Refer to Table 2-3. What is China's opportunity cost of producing one digital camera? 79) $\qquad$
A) 25 pounds of wheat B) 4 pounds of wheat
C) 40 pounds of wheat
D) 0.04 pounds of wheat
80) Refer to Table 2-3. What is South Korea's opportunity cost of producing one digital camera? 80) $\qquad$
A) 60 pounds of wheat B) 20 pounds of wheat
C) 25 pounds of wheat
D) 0.05 pounds of wheat
81) Refer to Table 2-3. What is China's opportunity cost of producing one pound of wheat?
81) $\qquad$
A) 0.04 units of a digital camera B) 25 digital cameras
C) 40 digital cameras
D) 4 digital cameras
82) Refer to Table 2-3. What is South Korea's opportunity cost of producing one pound of wheat? 82) $\qquad$
A) 0.05 units of a digital camera B) 5 digital cameras
C) 60 digital cameras
D) 20 digital cameras
83) Refer to Table 2-3. China has a comparative advantage in
83) $\qquad$
A) both products.
B) digital camera production.
C) neither product.
D) wheat production.
84) Refer to Table 2-3. South Korea has a comparative advantage in
84) $\qquad$
A) wheat production.
B) digital camera production.
C) both products.
D) neither product.
85) Refer to Table 2-3. If the two countries specialize and trade, who should export wheat?
85) $\qquad$
A) They should both be exporting wheat.
B) There is no basis for trade between the two countries.
C) China
D) South Korea
86) Refer to Table 2-3. If the two countries specialize and trade, who should export digital cameras?
86) $\qquad$
A) South Korea
B) China
C) They should both be importing digital cameras.
D) There is no basis for trade between the two countries.
87) If the best lawyer in town is also the best at operating a word processor, then according to economic reasoning, this person should 87) $\qquad$
A) specialize in being a work processor because it is more capital-intensive.
B) split her time evenly between being a lawyer and a word processor.
C) specialize in being a lawyer because its opportunity cost is lower.
D) should pursue the activity she enjoys more.
88) Rayburn Reed is a highly talented photographer. He has chosen to specialize in photography because of all of the following except $\qquad$ 88) $\qquad$
A) his photographs are highly esteemed by art lovers who are willing to pay very high prices.
B) his opportunity cost of pursuing another career is very low.
C) he obviously has a comparative advantage in photography.
D) for him, this is the most lucrative way to purchase the products that he wants to consume.

TRUE/FALSE. Write ' $T$ ' if the statement is true and ' $F$ ' if the statement is false.
89) If Blake can pick more cherries in one hour than Cody, then Blake has a comparative advantage in cherry picking. 89) $\qquad$
90) The basis for trade is comparative advantage, not absolute advantage.
90) $\qquad$
91) Suppose a country produces only two goods, then it is not possible to have a comparative advantage in the production of both those goods. 91) $\qquad$
92) In a two-good, two country world, if one country has an absolute advantage in the production of both goods, it cannot benefit by trading with the other country.
92) $\qquad$
93) If the opportunity cost of producing more of one good increases as more of that good is produced, then the production method is inefficient. 93) $\qquad$
94) It is possible to have a comparative advantage in producing a good or service without having an absolute advantage. 94) $\qquad$

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.
95) Table 2-4

|  | Digital Camera | Wheat (bushels) |
| :--- | :---: | :---: |
| China | 100 hours | 5 hours |
| South Korea | 90 hours | 3 hours |

Refer to Table 2-4. This table shows the number of labor hours required to produce a digital cameras and a bushel of wheat in China and South Korea.
a. Which country has an absolute advantage in the production of digital cameras?
b. Which country has an absolute advantage in the production of wheat?
c. What is China's opportunity cost of producing one digital camera?
d. What is South Korea's opportunity cost of producing one digital camera?
e. What is China's opportunity cost of producing one pound of wheat?
f. What is South Korea's opportunity cost of producing one pound of what?
g. If each country specializes in the production of the product in which it has a comparative advantage, who should produce digital cameras?
h. If each country specializes in the production of the product in which it has a comparative advantage, who should produce wheat? 95 ) $\qquad$

ESSAY. Write your answer in the space provided or on a separate sheet of paper.
96) Table 2-5

|  | Digital Camera | Wheat <br> (bushels ) |
| :--- | :---: | :---: |


| China | 100 hours | 5 hours |
| :--- | :---: | :--- |
| South Korea | 90 hours | 3 hours |

Refer to Table 2-5. This table shows the number of labor hours required to produce a digital camera and a bushel of wheat in China and South Korea.
a. If each country has a total of 9,000 labor hours to devote to the production of the two goods, draw the production possibilities frontier for each country. Put "Digital Camera" on the horizontal axis and "Wheat" on the vertical axis. Be sure to identify the intercept values on your graphs.
b. Suppose each country allocates $60 \%$ its labor hours to wheat production and $40 \%$ to the production of digital cameras. Complete Table 2-6 below to show each country's output of the two products.

Table 2-6: Production and Consumption with no Trade

|  | Digital Camera <br> Output | Wheat <br> output <br> (bushels) |
| :--- | :---: | :---: |
| China |  |  |
| South Korea |  |  |
| Total |  |  |

c. If the two countries do not trade and consume whatever they produce, identify the current production and consumption point for each country on their respective production possibilities frontiers. Label China's consumption point "C" and South Korea's consumption point, " $K$ ".
d. Suppose the two countries specialize and trade. Who should produce digital cameras and who should produce wheat? Explain your answer.
e. Complete Table 2-7 below to show each country's output with specialization.

Table 2-7: Output with Specialization

|  | Digital Camera <br> Output | Wheat <br> Output <br> (bushels) |
| :--- | :---: | :---: |
| China |  |  |
| South Korea |  |  |
| Total |  |  |

f. Did specialization increase the combined output for the two countries without any increase in resources? If so, by how much?
g. Suppose China and South Korea agree to trade so that in exchange for 1,200 bushels of wheat, the exporter of wheat receives 48 digital cameras. Complete Table 2.8 below to show each country's consumption bundle after trade.

Table 2.8: Consumption with Trade

|  | Digital Camera | Wheat <br> (bushels) |
| :--- | :---: | :---: |
| China |  |  |
| South Korea |  |  |

$h$. Show the consumption points after trade on each country's production possibilities frontier. Label these points " $B$ " for China and " $J$ " for Korea.
i. Has trade made the two countries better off? Explain your answer.

## SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

97) Suppose in the United States, the opportunity cost of producing a motor engine is 4 auto bodies. In Canada, the opportunity cost of producing a motor engine is 2 auto bodies.
a. What is the opportunity cost of producing an auto body for the United States?
b. What is the opportunity cost of producing an auto body for Canada?
c. Which country has a comparative advantage in the production of auto bodies?
d. Which country has a comparative advantage in the production of motor engines? 97) $\qquad$

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.
98) Which of the following is not a factor of production? 98) $\qquad$
A) $\$ 1,000$ in cash
B) the manager of the local tire shop
C) an acre of farmland
D) a drill press in a machine shop
99) An example of a factor of production is
99) $\qquad$
A) a loan granted to an auto manufacturer.
B) a car produced by an auto manufacturer.
C) the automobiles exported by an auto manufacturer.
D) a worker hired by an auto manufacturer.
100) If a commercial dairy farm wants to raise funds to purchase feeding troughs, it does so in the
100) $\qquad$
A) product market.
B) factor market.
C) dairy products market.
D) output market.
101) A worker is hired in a
101) $\qquad$
A) goods and services market. B) product market.
$\begin{array}{ll}\text { C) factor market. } & \text { D) government market. }\end{array}$
102) When you purchase a new pair of jeans you do so in the
102) $\qquad$
$\begin{array}{ll}\text { A) product market } & \text { B) resource market }\end{array}$
C) input marketD) factor market.
103) The resource income earned by those who supply labor services is called
103) $\qquad$
A) profit.
B) bonus.
C) wages and salaries. D) stock options.
104) Which of the following statements is false about an entrepreneur? 104) $\qquad$
A) organizes the other factors of production into a working unit
B) sells his entrepreneurial services in the output market
C) risks the personal funds provided
D) develops the vision for the firm and funds the producing unit

## 105) The circular flow model demonstrates

105) $\qquad$
A) how demand and supply for goods and services are brought into equilibrium.
B) the roles played by households and firms in the market system.
C) how shortages and surpluses are eliminated in a market.
D) the role of the government in overseeing the market system.
106) Households
107) $\qquad$
A) purchase resources in the factor market.
B) sell goods in the product market.
C) sell resources in the factor market.
D) have no influence on the circular flow in a market economy.
108) Households
109) $\qquad$
A) purchase final goods and services in the product market.
B) purchase resources in the product market.
C) purchase resources in the factor market.
D) purchase final goods and services in the factor market.
110) In the circular flow model, producers
111) $\qquad$
A) hire resources sold by households in the factor market.
B) households spend earnings from resource sales on goods and services in the factor market.
C) spend earnings from resource sales on goods and services in the product market.
D) sell goods and services in the input market.
112) Which of the following is not a flow in the circular flow model?
113) $\qquad$
A) the flow of goods and services and the flow of resources to produce goods and services
B) the flow of income earned by households and the flow of expenditures incurred by households
C) the flow of revenue received by producers and the flow of payments to resource owners
D) the flow of profit and the flow of revenue

Figure 2-8

110) Refer to Figure 2-8. The segment of the circular flow diagram in the Figure shows the flow of labor services from market $K$ to economic agents $J$. What is market $K$ and who are economic agents $J$ ? 110) $\qquad$
A) $K=$ product markets; $J=$ firms
B) $K=$ product markets; $J=$ households
C) $K=$ factor markets; $J=$ firms
D) $K=$ factor markets; $J=$ households
111) Refer to Figure 2-8. The segment of the circular flow diagram in the Figure shows the flow of wages and salaries from market $K$ to economic agents M . What is market $K$ and who are economic agents $M$ ?
111) $\qquad$
A) $K=$ product markets; $M=$ firms
B) $K=$ factor markets; $M=$ firms
C) $K=$ factor markets; $M=$ households
D) $K=$ product markets; $M=$ households
112) Which of the following are flows in the circular flow model? 112) $\qquad$
A) the flow of goods and the flow of services
B) the flow of income received by households and the flow of tax revenues paid by households
C) the flow of costs and the flow of revenue
D) the flow of income earned from the sale of resources and the flow of expenditures on goods and services.
113) Which of the following statements is true about a simple circular flow model?
113) $\qquad$
A) Households are sellers in the product market.
B) Producers are neither buyers nor sellers in the product market.
C) Households are neither buyers nor sellers in the input market.
D) Producers are buyers in the factors market.

Figure 2-9

114) Refer to Figure 2-9. The segment of the circular flow diagram in the Figure shows the flow of goods and services from market $C$ to economic agents $A$. What is market $C$ and who are economic agents $A$ ? 114) $\qquad$
A) $C=$ factor markets; $A=$ households
B) $C=$ product markets; $A=$ households
C) $C=$ product markets; $A=$ firms
D) $C=$ factor markets; $A=$ firms

Figure 2-10

115) Refer to Figure 2-10. The segment of the circular flow diagram in the Figure shows the flow of funds from market $F$ to economic agents G . The funds represent spending on goods and services. What is market $K$ and who are economic
$\qquad$
A) $F=$ factor markets; $G=$ firms
B) $F=$ product markets; $G=$ households
C) $F=$ factor markets; $G=$ households
D) $F=$ product markets; $G=$ firms
116) All of the following are examples of spending on factors of production in the circular flow model except
A) Bima hires two students to work at his ice-cream store.
B) The Banyan Tree rents a much larger property so that it can add a restaurant to its facilities.
C) "Get Fit Together"' purchases 3 new treadmills for its gym.
D) Iris buys a dozen roses for her mother's birthday.
117) All of the following are examples of spending on goods and services in the circular flow model except
A) Chaitanya buys a new spa pedicure chair for her expanding nail salon business.
B) Hernan buys a pizza at Papa C's.
C) Amanda purchases a new electric guitar to pursue her hobby seriously.
D) Lenny buys a new digital camera to take pictures at his son's graduation.
118) "An Inquiry into the Nature and Causes of the Wealth of Nations" published in 1776 was written by 118) $\qquad$ A) John Maynard Keynes. B) Alfred Marshall.
C) Adam Smith.D) Karl Marx.

Figure 2-11

119) Refer to Figure 2-11. Which two arrows in the diagram depict the following transaction: Stanley purchases the novel, "Night of Sorrows" for his summer reading pleasure.
119) $\qquad$
A) $K$ and $G$
B) $J$ and $M$
C) $J$ and $G$
D) $K$ and $M$
120) Refer to Figure 2-11. Which two arrows in the diagram depict the following transaction: Lizzie Haxem hires "The Paint Pros," a professional painting company, to paint her home.
120) $\qquad$
A) $J$ and $M$
B) $K$ and $M$
C) $K$ and $G$
D) $J$ and $G$
121) Refer to Figure 2-11. Which two arrows in the diagram depict the following transaction: Carter earns a $\$ 400$ commission for selling men's designer shoes at Brooks Brothers. 121) $\qquad$
A) $J$ and $M$
B) J and G
C) $K$ and $M$
D) $K$ and $G$
122) Adam Smith's behavioral assumption about humans was that people
122) $\qquad$
A) usually act in a rational, self-interested way.
B) typically act randomly.
C) are consistently greedy.
D) typically act irrationally.
123) Which of the following countries does not come close to the free market benchmark? 123) $\qquad$
A) Japan
B) France
C) Cuba
D) The United States

## 124) Adam Smith's invisible hand refers to

124) $\qquad$
A) property ownership laws and the rule of the court system.
B) the laws of nature that influence economics decisions.
C) the process by which individuals acting in their own self-interest bring about a market outcome that benefits society as a whole.
D) the government's unobtrusive role in ensuring that the economy functions efficiently.
125) A critical function of the government in facilitating the operation of a market economy is $\qquad$
A) setting up and enforcing private property rights.
B) producing goods and services for low income households.
C) ensuring an equal distribution of income to all citizens.
D) controlling the market prices of food items.
126) The term "property rights" refers to
127) $\qquad$
A) the physical possession of a house or any other property which the owner legally purchased.
B) the right of a business not to have its assets confiscated by the government in the event that the business is accused of committing fraud.
C) the government's right to appropriate land from wealthy land owners to redistribute to peasants
D) the ability to exercise control over one's own resources within the confines of the law.
128) The primary purpose of patents and copyrights is to 127) $\qquad$
A) protect domestic firms from foreign competition.
B) protect firms from being taken advantage of by competing firms.
C) encourage the expenditure of funds on research and development to create new products.
D) provide owners with large profit forever.
129) A major factor contributing to the slow growth rate of less developed economies is
130) $\qquad$
A) the lack of workers.
B) the high rate of illiteracy.
C) the lack of well-defined and enforceable property rights.
D) the lack of natural resources.
131) A successful market economy requires well defined property rights and
132) $\qquad$
A) balanced supplies of all factors of production.
B) detailed government regulations.
C) an independent court system to adjudicate disputes based on the law.
D) a safety net to ensure that those who cannot participate in the market economy can earn an income.
133) Consider the following items:
a. the novel "The DaVinci Code" by Dan Brown
b. the "The Spirited Shipper", an innovative wine shipping box
c. a Swiss chef's award-winning recipe
d. an original fabric design, for example, the fabric used for "Coach" bags and luggage

Which of the items listed is an example of intellectual property? 130) $\qquad$
A) a and d only B) a and b only
$\begin{array}{ll}\text { C) a, b, and c } & \text { D) all of the items listed }\end{array}$
131) A guild is 131) $\qquad$
A) a group of independent producers competing with each other.
B) a nation that is a free market benchmark.
C) an organization of producers that limits the amount of a good produced.
D) a group of nations who agree not to compete with each other.
132) In 18th century Europe, governments gave guilds legal authority to limit production of goods. Did this authority obstruct or improve the market mechanism and how? 132) $\qquad$
A) It obstructed the market mechanism because the guild's actions prevented the forces of demand and supply from coordinating the self-interested decisions of producers and consumers.
B) It obstructed the market mechanism because with one more party having to coordinate activities (the guilds) there were delays in getting the products to consumers.
C) It improved the market mechanism by making it more efficient because the guilds were able to quickly identify and rectify any market shortages and surpluses.
D) It improved the market mechanism because the government's actions provided the correct set of signals to the market so that producers can adjust their output to better meet the needs of consumers.

TRUE/FALSE. Write ' $T$ ' if the statement is true and ' $F$ ' if the statement is false.
133) The payment received by suppliers of entrepreneurial skills is called profit. 133) $\qquad$
134) In the circular flow model, households supply resources such as labor services in the product market.
135) In economics, the term "free market" refers to a market where no sales tax is imposed on products sold.
136) In a free market there are virtually no restrictions, or at best few restrictions on how factors of production can be employed. 136) $\qquad$
137) A stand of redwood trees is not an example of a factor of production but the harvested and processed redwood is a factor of production. 137) $\qquad$
138) Each person goes about her daily business seeking to maximize her own self interests. In doing so, she contributes to the welfare of society at large. This is the idea underlying Adam Smith's "invisible hand."
138) $\qquad$

## SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

139) Define the term "property rights." Explain why the lack of well defined and enforceable property rights is
140) When videos on YouTube contained material from television shows or movies, YouTube had to obtain permission from several people who held rights to the television show or movie, which could be a time consuming process. YouTube's vice president for business development was quoted as saying, "It's almost like technology has pushed far beyond the business practices and the law, and now everything needs to kind of catch up." What do you think he meant by that statement? 140)
141) Adam Smith, the father of modern economics wrote in his book, An Inquiry into the Nature and Causes of the Wealth of Nations, "It is not from the benevolence of the butcher, the brewer, or the baker, that we expect our dinner but from their regard to their own interest." Explain what he meant by that statement and how such behavior promotes the wealth of a nation. 141)
142) $C$
143) $A$
144) $B$
145) $B$
146) C
147) $D$
148) $D$
149) $D$ 9) C
150) A
151) C
152) D
153) A
154) D
155) B
156) C
157) A
158) B
159) $B$
160) $A$
161) A
162) A
163) C
164) A
165) C
166) C
167) C
168) D
169) D
170) A
171) C
172) D
173) C
174) B
175) D
176) D
177) C
178) B
179) B
180) C
181) B
182) D
183) B
184) C
185) D
186) A
187) C
188) D
189) D
190) TRUE
191) TRUE
192) TRUE
193) TRUE
194) FALSE
195) FALSE
196) TRUE
197) TRUE
198) a. The PPF is concave (bowed away from the origin) to reflect the fact that resources are not equally suited to both tasks.

b. Opportunity cost is defined as the highest valued alternative that must be forgone by taking an action.
c. In the PPF graph in part (a), suppose the country is currently producing at point $A$ and wishes to move to point $B$ so that it can produce more wine. The only way it can obtain more wine is to give up some a mount of cheese.
199) a.

b. $\quad 10$ pounds of apples
c. It increases. For example to move to E, the Fruit Farm has to give up 10,000 pounds of apples to produce an additional 8,000 pounds of pears. For each additional 10,000 pounds of apples foregone, the payoff in terms of pears gets progressively smaller.
d. It increases. Each time it wants to produce an additional 10,000 of apples, more and more pears must be given up.
e.

200) D
201) B
202) B
203) A
204) B
205) C
206) A
207) D
208) B
209) C
210) B
211) D
212) D
213) A
214) C
215) A
216) C
217) B
218) D
219) A
220) B
221) A
222) A
223) D
224) B
225) C
226) A
227) C
228) B
229) FALSE
230) TRUE
231) TRUE
232) FALSE
233) FALSE
234) TRUE
235) a. South Korea has an absolute advantage in the production of digital cameras.
b. South Korea has an absolute advantage in wheat production.
c. China's the opportunity cost of producing one digital camera is 20 bushels of wheat.
d. South Korea's opportunity cost of producing one digital camera is 30 bushels of wheat
e. China's the opportunity cost of one bushel of wheat is 0.05 units of a digital camera.
f. South Korea's the opportunity cost of one bushel of wheat is 0.03 units of a digital camera.
g. China should specialize in producing digital cameras.
h. South Korea should specialize in producing wheat.


b.

Table 2-6: Production and Consumption with no Trade

|  | Digital Camera <br> Output | Wheat <br> Output <br> (bushels) |
| :--- | :---: | :---: |
| China | 36 | 1,080 |
| South Korea | 40 | 1,800 |
| Total | 76 | 2,880 |

c. $\quad$ See graph in part (a)
d. China should specialize in producing digital cameras because it has a lower opportunity cost: 20 bushels of wheat as opposed to South Korea's 30 bushels of wheat. South Korea should specialize in producing wheat because it has a lower opportunity cost: 0.03 units of a digital camera as opposed to China's 0.05 units of a digital camera.
e.

Table 2-7: Output with Specialization

|  | Digital Camera <br> Output | Wheat <br> output <br> (bushels) |
| :--- | :---: | :---: |
| China | 90 | 0 |
| South Korea | 0 | 3,000 |
| Total | 90 | 3,000 |

f. Yes, digital camera output increased by 14 units from 76 to 90 units and wheat output increased by 120 bushels. g.

Table 2-8: Consumption with Trade

|  | Digital Camera | Wheat <br> (bushels) |
| :---: | :---: | :---: |
| China | 42 | 1,200 |
| South Korea | 48 | 1,800 |

h. See graph in part (a)
i. Yes, trade has enabled the two countries to consume outside their PPFs.
97) a. For the United States, the opportunity cost of producing an auto body is $1 / 4$ th of a motor engine.
b. For Canada, the opportunity cost of producing an auto body is $1 / 2$ of a motor engine.
c. The United States has a comparative advantage in the production of auto bodies.
d. Canada has a comparative advantage in the production of motor engines.
98) A
99) D
100) B
101) C
102) A
103) C
104) B
105) B
106) C
107) A
108) A
109) D
110) C
111) C
112) D
113) D
114) B
115) D
116) D
117) A
118) C
119) A
120) C
121) A
122) A
123) C
124) C
125) A
126) D
127) C
128) C
129) C
130) D
131) C
132) A
133) TRUE
134) TRUE
135) FALSE
136) TRUE
137) FALSE
138) TRUE
139) The term "property rights" refers to the rights that individuals or firms have to the exclusive use of their resources, within the confines of the law. Well defined and enforceable property rights provide the incentive for people and firms to invest resources and undertake risks. This encourages the production of a wide range of goods and services. Without property rights and the means to enforce these rights, no person would want to undertake such a risk.
140) His statement alludes to the fact that the nature of internet technology requires society to change the legal understanding or status of copyright as it stands and to re-examine the payment mechanism.
141) The statements refer to the fact that people act in their own self interest. For example, the butcher who sells meat and the baker who bakes bread carry out these activities because these tasks contributed to their livelihood, not because they were concerned about the diner. Nevertheless, their actions benefited the diner. This is precisely one of the virtues of a market: people do not have to act virtuously to produce worthwhile outcomes. Producing goods and services that consumers value increases the wealth of a nation.

