Test 1 - Dr. Rupp
Name $\qquad$ Sign Pledge
"I have neither given nor received aid on this exam"
Multiple Choice Questions (2 points each)

1. True/False: A price ceiling can cause a surplus.
A. True
B. False
2. Any point on a country's production possibilities curve represents a combination of two goods that an economy:
A. Will never be able to produce
B. Can produce using all available resources and technology
C. Can produce using some of its resources and technology
D. May be able to produce sometime in the future with additional resources and technology
3. Hillary Clinton should be the next U.S. President. This is an example of a:
A. Normative statement
B. Positive statement
4. A good is considered scarce in a society when
A. More output of the good is possible
B. Everyone in society cannot have all they want of the good
C. The government restricts production of the good
D. Only the richest people in the economy can buy all they want of the good
5. The minimum legal price is called a
A. Limit price
B. Price floor
C. Reservation price
D. Price ceiling
E. Swing price
6. The supply curve for DVDs is $P=2+6 Q^{s}$ and the demand curve for DVDs is: $P=44-Q^{d}$. Find the equilibrium price.
A. $\mathrm{P}=32$
B. $P=6$
C. $P=34$
D. $P=7$
E. $P=38$
7. Using the information from the previous question (\#6), calculate the total revenue.
A. 228
B. 340
C. 259
D. 266
E. 224

Figure 1

8. Refer to Figure 1. Which point(s) above are obtainable?
a. $B, D, E$
b. A, B, D, E
c. $\mathrm{D}, \mathrm{C}$
d. $B, E$
e. D
9. Refer to Figure 1. Which point(s) are unobtainable?
a. A
b. C
c. A, C
d. D
e. $B, E$
10. Refer to Figure 1. Which point(s) are inefficient?
a. A, C
b. $\mathrm{D}, \mathrm{C}$
c. C
d. A
e. D

Figure 2

11. Refer to Figure 2. Which of the following would most likely have caused the production possibilities curve to shift outward from A to B?
a. an increase in resources necessary to produce capital goods
b. an improvement in the technology of producing consumer goods
c. an increase in the overall level of technology in the economy
d. an increase in unemployment

Figure 3

12. Refer to Figure 3. What is the opportunity cost of moving from point A to point D?
a. 60 toothbrushes.
b. 15 toasters.
c. 20 toasters.
d. 30 toothbrushes
e. 30 toasters.
13. The law of supply indicates:
A. if someone is willing to buy, then a seller is willing to supply it
B. if price goes up, people will buy less
C. if income goes up, sellers are willing to supply more
D. if price goes up, sellers are willing to supply more

Figure 4

14. Refer to Figure 4. If the government imposes a price ceiling at $\$ 14$, the result would be
a. a shortage of 20 units.
b. a surplus of 20 units.
c. a shortage of 40 units.
d. a surplus of 40 units.
e. neither a surplus nor a shortage.
15. Refer to the graph from the previous page (Figure 4). If the government imposes a price floor at $\$ 8$, the quantity traded would be:
a. 30
b. 40
c. 50
d. 60
e. 70
16. True/False: Indifference curves sometimes cross.
a. True
b. False
17. Marginal rate of substitution is
a. The point in which a consumer is willing to trade their first unit of the good
b. The price of good X compared to the price of good Y .
c. The trade-off between two goods under consideration at any particular point.
d. The trade-off between labor and leisure.
18. If a consumer experiences a reduction in income, what effect will this have on the budget constraint?
a. It will have no effect on the budget constraint
b. It would cause the budget constraint to shift in
c. It would cause the budget constraint to shift out
19. This year Men's NCAA basketball season the following results occurred: Gonzaga beat UNC. UNC beat UVa. UVa beat Gonzaga. This proves that basketball does not obey:
a. The Law of Concavity
b. The Law of Complexity
c. The Law of Completeness
d. The Law of Transitivity
20. When comparing two bundles: A and B, which of the following assumption about preferences indicates that consumers either like A better; or like B better; or like them both the same?
a. Concavity
b. More-is-better
c. Complexity
d. Completeness
e. Transitivity
21. The price of gum is 20 cents and the price of candy is 10 cents. A student is willing to give up 1 piece of gum (vertical axis) for 3 pieces of candy (horizontal axis). Money income is $\$ 1$. Hence the marginal rate of substitution is: (hint, graph this information)
a. $1 / 2$
b. $1 / 3$
c. 3
d. 2
e. 4
22. The price of gum is 20 cents and the price of candy is 10 cents. A student is willing to give up 1 piece of gum (vertical axis) for 3 pieces of candy (horizontal axis). Money income is $\$ 1$. Hence the slope of the budget constraint is: (hint, graph this information)
a. $-1 / 2$
b. $-1 / 3$
c. -3
d. -2
e. -4
23. Based on your answers to the previous two questions, what should this student do:
a. Buy more gum and less candy
b. Buy more candy and less gum
c. Do not change her consumption since she is already consuming the optimal bundle.
24. Based on the information from question \#22, what is the equation of the budget constraint? (where G = Gum and C = Candy)
a. $G=10-2 C$
b. $G=5-C$
c. $\mathrm{G}=5-1 / 2 \mathrm{C}$
d. $G=10-1 / 2 C$
e. $G=5-1 / 4 \mathrm{C}$
25. If the indifferences curves are convex, then this indicates that:
a. One of the goods is a useless good
b. One of the goods is an economic bad
c. A balance in consumption is desirable
d. The goods must be perfect substitutes
e. The goods must be perfect complements

Extra Credit (+2 points: Only for students whose cell phones did not ring in class and only if you are taking this test during the normally scheduled class time: Feb $1^{\text {st }}$ at 11am)

Much economic analysis is based on a "ceteris paribus" assumption. What does this Latin phrase mean?

## Discussion Questions - 50 points

I. Courtney will only eat a hot dog if she has a hot dog bun to go with the hot dog (and the converse is also true: she only eats a hot dog bun if she has a hot dog). Graph three indifference curves for Courtney where hot dogs are on the vertical axis and hot dog buns on the horizontal axis. Label the indifference curves $U_{1}, U_{2}$, and $U_{3}$ (where $U_{3}$ is preferred to $U_{2}$ which is preferred to $U_{1}$ ). (10 points)

## Hot Dogs

Hot Dog Buns
II. Graph the citrus market below. Show the effects of a recent hard freeze in California (where they grow lots of citrus). Clearly label all curves that you draw. Label the original equilibrium point "A" on your graph, and the new equilibrium (after the hard freeze) point "B". (10 points)

P Citrus Market
III. Assume that Big Macs and Whoppers are substitutes.
A. Show the effects in the Big Mac market below, if there is a drop in the price of Whoppers (6 points).
B. What happens to the equilibrium price of Big Macs? (2 points)
C. What happens to the equilibrium quantity of Big Macs? (2 points)

P
Big Mac Market

Q
IV. Jane likes Snicker's bars twice as much as she likes Twix bars.
A. On a graph below draw three indifference curves for Jane where $U_{3}$ is preferred to $U_{2}$ which is preferred to $\mathrm{U}_{1}$ (5 points)

## Snicker's Bars

B. Jane earns $\$ 100$ per week. If Snickers bars cost $\$ 1.00$ and Twix bars cost $\$ 0.80$, how many Snicker's bars and Twix bars will she buy? (5 points)
V. Jackson earns $\$ 200$ per week. He spends money on two goods: Sugar Daddies (\$0.50 each) and Big Macs (\$2 each).
A. Sketch Jackson's budget constraint with Sugar Daddies on the vertical axis and Big Macs on the horizontal (4 points).

Sugar Daddies

Big Macs
B. What is the equation of Jackson's budget constraint that you just sketched in (A)? (4 points)
C. What is the opportunity cost of a Big Mac for Jackson? (2 points)

