Name __________________

Eco 201: Homework 1
Covers Chap 1 & 2 & 3

MULTIPLE CHOICE (2 points each question):

Opportunity Cost (Principle 2, Chap 1)
1. Henry decides to spend two hours playing golf rather than working at his job, which pays $8 per
   hour. Henry’s tradeoff is
   a. the $16 he could have earned working for two hours.
   b. nothing, because he enjoys playing golf more than working.
   c. the increase in skill he obtains from playing golf for those two hours.
   d. nothing, because he spent $16 for green fees to play golf.
   ANSWER: a. the $16 he could have earned working for two hours.

2. When society requires that firms reduce pollution, there is
   a. a tradeoff because of reduced incomes to the firms’ owners, workers, and customers.
   b. no tradeoff, since everyone benefits from reduced pollution.
   c. no tradeoff for society as a whole, since the cost of reducing pollution falls only on the firms
      affected by the requirements.
   d. a tradeoff only if some firms are forced to close.
   ANSWER: a. a tradeoff because of reduced incomes to the firms’ owners, workers, and customers.

Economists Assumptions (Chap 2)
3. Economists make assumptions
   a. to diminish the chance of wrong answers.
   b. to make the world easier to understand.
   c. because all scientists make assumptions.
   d. to make certain that all necessary variables are included.
   ANSWER: b. to make the world easier to understand.

Production Possibility Frontier (Chap 2)
4. Any point on a country’s production possibilities frontier 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.
   ANSWER: b. can produce using all available resources and technology.

Production Possibility Frontier (Chap 2)
5. When a production possibilities frontier is linear it shows
   a. a truer picture of real life than a bowed out production possibilities frontier.
   b. that resources are perfectly shiftable from the production of one good to another.
   c. an example of increasing opportunity cost.
   d. All of the above are correct.
   ANSWER: b. that resources are perfectly shiftable from the production of one good to another.
6. On the production possibilities frontier shown, the opportunity cost to the economy of getting 30 additional toothbrushes by moving from point A to point D is
   a. 10 toasters.
   b. 15 toasters.
   c. 20 toasters.
   d. 25 toasters.
   ANSWER: c. 20 toasters.

7. According to the table, the opportunity cost of 1 pound of meat for the farmer is
   a. 1/4 hour of labor.
   b. 4 hours of labor.
   c. 4 pounds of potatoes.
   d. 1/4 pound of potatoes.
   ANSWER: c. 4 pounds of potatoes.

8. According to the table, the opportunity cost of 1 pound of meat for the rancher is
   a. 4 hours of labor.
   b. 5 hours of labor.
   c. 5/4 pounds of potatoes.
   d. 4/5 pound of potatoes.
   ANSWER: d. 4/5 pound of potatoes.

9. According to the table, the Farmer has an absolute advantage in
   a. meat, and the Rancher has an absolute advantage in potatoes.
   b. potatoes, and the Rancher has an absolute advantage in meat.
   c. meat, and the Rancher has an absolute advantage in meat.
   d. neither good, and the Rancher has an absolute advantage in both goods.
   ANSWER: b. potatoes, and the Rancher has an absolute advantage in meat.
10. The Rancher has a comparative advantage in
   a. neither good, and the Farmer has a comparative advantage in both goods.
   b. both goods, and the Farmer has a comparative advantage in neither good.
   c. meat, and the Farmer has a comparative advantage in potatoes.
   d. potatoes, and the Farmer has a comparative advantage in meat.

   ANSWER: c. meat, and the Farmer has a comparative advantage in potatoes.

PROBLEMS and APPLICATIONS (10 points each problem):

Production Possibility Frontier

11. Draw a production possibilities frontier showing increasing opportunity cost for hammers and horseshoes (You should have two graphs).
   a. On a graph, identify the area of feasible outcomes and the area of infeasible outcomes.
   b. On the same graph, label a point that’s efficient as point “E” and a point that inefficient as point “I”.
   c. On the same graph, illustrate the effect of the discovery of a new vein of iron ore, a resource needed to make both horseshoes and hammers, on this economy.
   d. On a separate graph for hammers and horseshoes, illustrate the effect a new computerized assembly line in the production of hammers would have.

12. p. 57, Problems and Applications, Q2:
   a. Draw Maria’s production possibilities frontier for reading economics and sociology.
   b. What is Maria’s opportunity cost of reading 100 pages of sociology?

   a. See p. 49, for help. We also went over a problem like this in class. If Maria spends all five hours studying economics, she can read 100 pages, so that is the vertical intercept of the production possibilities frontier. If she spends all five hours studying sociology, she can read 250 pages, so that is the horizontal intercept. The time costs are constant, so the production possibilities frontier is a straight line.
b. It takes Maria two hours to read 100 pages of sociology. In that time, she could read 40 pages of economics. So the opportunity cost of 100 pages of sociology is 40 pages of economics.

13. p. 58, Problems and Applications, Q4 (omit part c, only complete a & b)
a. How long does it take for Pat to cook one pizza? 2 HRS. In 2 HRS, how much root beer can Pat brew? Since Pat can brew root beer at 4 gallons/HR, only ½ a gallon will be brewed. Thus, Pat’s opportunity cost is ½. Pat has an absolute advantage in making pizza since she can make one in two hours, while it takes Kris four hours (Also has absolute advantage in beer, too). Kris’ opportunity cost of making a pizza is 2/3 gallons of root beer, since she could brew 2/3 of a gallon in the time (4 hours) it takes her to make a pizza. Since Pat's opportunity cost of making pizza is less than Kris's, Pat has a comparative advantage in making pizza.

b. Since Pat has a comparative advantage in making pizza, she will make pizza and exchange it for root beer that Kris makes.