FINAL EXAMINATION
ECON 200
Spring 2009
Version B

STUDENT'S NAME: _____________________________________________

STUDENT'S IDENTIFICATION NUMBER: __________________________

DAY AND TIME YOUR SECTION MEETS: __________________________

BEFORE YOU BEGIN PLEASE MAKE SURE THAT YOUR EXAMINATION HAS BEEN DUPLICATED
AND COLLATED CORRECTLY. THERE SHOULD BE 60 MULTIPLE CHOICE QUESTIONS. THE
EXAM HAS 16 PAGES INCLUDING THIS COVER SHEET.

ANSWER ALL THE PROBLEMS ON THE SCANTRON SHEET.

☑ BE SURE TO FILL-IN AND BUBBLE YOUR NAME (LAST NAME [SPACE] FIRST NAME) AT
THE TOP OF THE SCANTRON SHEET.
☑ FILL IN AND BUBBLE YOUR STUDENT IDENTIFICATION NUMBER UNDER
"IDENTIFICATION NUMBER" ON THE SCANTRON SHEET.
☑ WRITE YOUR TA'S NAME IN THE UPPER-RIGHT HAND CORNER OF YOUR SCANTRON
SHEET.
☑ ENTER THE NUMBER 177555 UNDER "SPECIAL CODES" ON THE SCANTRON SHEET

University of Maryland Honor Pledge

The University is committed to Academic Integrity, and has a nationally recognized Honor Code,
administered by the Student Honor Council. In an effort to affirm a community of trust, the Student Honor
Council proposed and the University Senate approved Honor Pledge. The University of Maryland Honor
Pledge reads:

"I pledge on my honor that I have not given or received any unauthorized assistance on this examination (or
assignment)."

Please rewrite the exact wording of the pledge, followed by your signature in the space below:

Pledge: __________________________________________________________________________

________________________________________________________________________________

________________________________________________________________________________

Your Signature: ________________________________
Multiple Choice
(Each question is worth 2.5 points. Please select THE BEST answer.)

1. When marginal cost is less than average total cost,
   a. marginal cost must be falling.
   b. average variable cost must be falling.
   c. average total cost must be falling.
   d. average total cost must be rising.

2. Which of the following information about costs best coincides with Figure 1?
   a. positive fixed costs and zero or constant average variable costs.
   b. zero fixed costs and zero or constant average variable costs.
   c. zero fixed costs and increasing average variable costs.
   d. positive fixed costs and increasing average variable costs.

3. In a competitive market with identical firms,
   a. an increase in demand in the short run will result in a new price above the minimum of average total cost, allowing firms to earn a positive economic profit in both the short run and the long run.
   b. firms cannot earn positive economic profit in either the short run or long run.
   c. firms can earn positive economic profit in the long run if the long-run market supply curve is upward sloping.
   d. free entry and exit into the market requires that firms earn zero economic profit in the long run even though they may be able to earn positive economic profit in the short run.

4. Which of the following not true?
   a. Even with market power, monopolists cannot achieve any level of profit they desire because they will sell lower quantities at higher prices.
   b. By comparing the marginal revenue and marginal cost from each unit produced, a firm in a competitive market can determine the profit-maximizing level of production.
   c. By comparing the marginal revenue and marginal cost from each unit produced, a firm with monopoly power can determine the profit-maximizing level of production.
   d. A monopolist maximizes profit by producing an output level where marginal cost equals price.
Figure 2: The company *iWatch* is an unregulated profit-maximizing monopolist in the residential cable television industry in a small town. The following curves show the marginal cost (MC), marginal revenue (MR), average total cost (ATC), and demand (D) in the market for cable television. *iWatch* cannot price discriminate.

5. Refer to Figure 2. *iWatch* will offer subscriptions to subscribers at a price of ___ per month. At this price, ___ households will subscribe to their cable television service.
   a. $40, 250  
   b. $60, 400  
   c. $100, 250  
   d. $120, 200

6. Refer to Figure 2. What is the maximum profit (per month) that *iWatch* can make?
   a. $15,000 (=60\times250)  
   b. $16,250 (=65\times250)  
   c. $17,400 (=87\times200)  
   d. Other

7. Refer to Figure 2. Suppose you work as an administrator in the town’s government and are charged with monitoring this firm. What is the efficient quantity in this market?
   a. 200 subscribers  
   b. 250 subscribers  
   c. 280 subscribers  
   d. 400 subscribers

8. If the price elasticity of demand for a good is 0.4, then a 10 percent increase in price results in a
   a. 0.4 percent decrease in the quantity demanded.  
   b. 2.5 percent decrease in the quantity demanded.  
   c. 4.0 percent decrease in the quantity demanded.  
   d. 40 percent decrease in the quantity demanded.
**Scenario 1:** The following game represents a game played by John and Jane. The entries in the table below describe first Jane’s payoff and, second, John’s payoff.

<table>
<thead>
<tr>
<th></th>
<th>Left</th>
<th>Center</th>
<th>Right</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top</td>
<td>-50,-10</td>
<td>(80,30)</td>
<td>(30,40)</td>
</tr>
<tr>
<td>Middle</td>
<td>(10,90)</td>
<td>(0,10)</td>
<td>(35,0)</td>
</tr>
<tr>
<td>Bottom</td>
<td>(20,-30)</td>
<td>(40,10)</td>
<td>(40,15)</td>
</tr>
</tbody>
</table>

9. Refer to **Scenario 1**. What is an equilibrium outcome of this game?
   a. Jane plays Top; John plays Right
   b. Jane plays Bottom; John plays Right
   c. Jane plays Middle; John plays Left
   d. There is no equilibrium in this game.

**Scenario 2:** A dentist shares an office building with a radio station. The electrical current from the dentist's drill causes static in the radio broadcast, causing the radio station to lose $40,000 in profits. The radio station could put up a shield at a cost of $30,000; the dentist could buy a new drill that causes less interference for $6,000. Either would restore the radio station’s lost profits.

10. Refer to **Scenario 2**. What is the economically efficient outcome?
    a. The radio station puts up a shield, which it pays for.
    b. The radio station puts up a shield, which the dentist pays for.
    c. Neither the radio station nor the dentist purchase additional equipment.
    d. The dentist gets a new drill; it does not matter who pays for it.

11. Refer to **Scenario 2**. Suppose the law indicates that the dentist can use whatever drill she chooses. If the cost of bargaining (between the dentist and the radio station’s manager) is small, what is the outcome predicted by the Coase Theorem?
    a. The radio station puts up a shield, which it pays for.
    b. The dentist gets a new drill; which she pays for.
    c. The dentist gets a new drill; which the radio station pays for.
    d. None of the above. Neither A, B, or C is likely to occur.
**Figure 3:** The figure below shows the production function for a particular firm.

12. Refer to Figure 3. The marginal product when going from two to three workers is
   a. 20 units.
   b. 30 units.
   c. 40 units.
   d. 50 units.

13. Refer to Figure 3. Suppose the firm pays a wage equal to $160 per unit of labor and sells its output at $10 per unit. What is the value of the marginal product of labor when going from three to four workers?
   a. 10 units
   b. $100
   c. $1,000
   d. $1,600

14. Refer to Figure 3. Suppose the firm pays a wage equal to $160 per unit of labor and sells its output at $10 per unit. How many units of labor should the firm hire to maximize profit?
   a. 5 units
   b. 4 units
   c. 3 units
   d. 2 units

15. Refer to Figure 3. Suppose the firm pays a wage equal to $320 per unit of labor and sells its output at $15 per unit. How many units of labor should the firm hire to maximize profit?
   a. 5 units
   b. 4 units
   c. 3 units
   d. 2 units
16. An early frost in the vineyards of Napa Valley would cause
   a. an increase in the demand for Napa wine, increasing price.
   b. an increase in the supply of Napa wine, decreasing price.
   c. a decrease in the demand for Napa wine, decreasing price.
   d. a decrease in the supply of Napa wine, increasing price.

17. An advance that increases the marginal productivity of every factor used by a firm in a small industry will
   a. increase a firm's costs.
   b. allow firms to raise the price of their product.
   c. shift the supply curve to the right, but the demand curve will be unaffected.
   d. shift the supply curve to the right and shift the demand curve to the right.

**Scenario 3:** Assume a certain perfectly competitive firm is producing Q = 1,000 units of output. At this output level, the firm's marginal cost equals $20 and its average total cost equals $25. The firm sells its output for $30 per unit.

18. Refer to **Scenario 3**. To maximize its profit, the firm should
   a. increase its output.
   b. continue to produce 1,000 units.
   c. decrease its output but continue to produce.
   d. shut down.

19. Refer to **Scenario 3**. At Q = 1,000, the firm's profit equals ___.
   a. $-5,000
   b. $2,500
   c. $5,000
   d. $10,000

20. Refer to **Scenario 3**. At Q = 999, the firm's total cost amounts to ___.
    a. $24,970
    b. $24,975
    c. $24,980
    d. $25,025

21. Refer to **Scenario 3**. At Q = 999, the firm's profit equals ___.
    a. $4,990
    b. $5,000
    c. $5,020
    d. $5,030

22. A free-rider problem exists for goods that are **not**
    a. rival in consumption.
    b. a private good.
    c. free.
    d. excludable.
Figure 4: The figure below illustrates a tariff. $Q$ represents quantity and $P$ represents price.

23. Refer to Figure 4. Government revenue raised by the tariff is represented by the area ___.
   a. B + D + E + F
   b. B + E
   c. D + E + F
   d. E

24. Refer to Figure 4. The area C + D + E + F represents
   a. the decrease in consumer surplus caused by the tariff.
   b. the decrease in total surplus caused by the tariff.
   c. the deadweight loss of the tariff minus government revenue raised by the tariff.
   d. the deadweight loss of the tariff plus government revenue raised by the tariff.

25. Refer to Figure 4. The tariff
   a. decreases producer surplus by the area C, decreases consumer surplus by the area C + D + E, and decreases total surplus by the area D + F.
   b. increases producer surplus by the area C, decreases consumer surplus by the area C + D + E + F, and decreases total surplus by the area D + F.
   c. creates government revenue represented by the area B + E and decreases total surplus by the area D + E + F.
   d. increases producer surplus by the area C + G and creates government revenue represented by the area D + E + F.

26. An outward shift of the budget constraint will cause a consumer to buy
   a. fewer normal goods and more inferior goods.
   b. more normal goods and fewer inferior goods.
   c. more normal goods and more inferior goods.
   d. fewer normal goods and fewer inferior goods.
27. Suppose the cross-price elasticity of demand between hot dogs and mustard is -2.00. This implies that a 20 percent increase in the price of hot dogs will cause the quantity of mustard purchased to
   a. fall by 200 percent.
   b. fall by 40 percent.
   c. rise by 200 percent.
   d. rise by 40 percent.

28. Which of the following statements is valid when the market supply curve is vertical? (Recall, price is on the vertical axis and quantity is on the horizontal axis)
   a. Market quantity supplied does not change when the price changes.
   b. Supply is perfectly elastic.
   c. An increase in market demand will increase the equilibrium quantity.
   d. An increase in market demand will not increase the equilibrium price.

29. In the housing market, rent control causes
   a. quantity supplied to fall and quantity demanded to fall.
   b. quantity supplied to fall and quantity demanded to rise.
   c. quantity supplied to rise and quantity demanded to fall.
   d. quantity supplied to rise and quantity demanded to rise.

30. If the relative price of a concert ticket is 3 times the price of a meal at a good restaurant, then the opportunity cost of a concert ticket can be measured by the
   a. slope of the budget constraint.
   b. slope of an indifference curve.
   c. marginal rate of substitution.
   d. income effect.

31. Mike and Sandy are two woodworkers who both make tables and chairs. In one month, Mike can make 4 tables or 20 chairs, while Sandy can make 6 tables or 18 chairs. Given this, we know that
   a. Mike has an absolute advantage in chairs.
   b. Mike has a comparative advantage in tables.
   c. Sandy has an absolute advantage in chairs.
   d. Sandy has a comparative advantage in chairs.

32. Suppose demand for lemons is perfectly elastic and the supply of lemons decreases. As a result,
   a. the equilibrium quantity decreases and the equilibrium price is unchanged.
   b. the equilibrium price increases and the equilibrium quantity is unchanged.
   c. the equilibrium quantity and the equilibrium price both are unchanged.
   d. buyers’ total expenditure on the good is unchanged.

33. A consumer has preferences over two goods, books and movies. The consumer is currently spending all available income on these two goods and maximizes satisfaction by purchasing ten books and five movies. The price of a movie falls and the consumer optimally chooses to consume eleven books and four movies. From this information we can infer that
   a. movies are a normal good for this consumer.
   b. movies are a luxury good for this consumer.
   c. movies are a Giffen good for this consumer.
   d. movies are neither an inferior good nor a Giffen good for this consumer.
34. Which of the following statements best describes the substitution effect?
   a. The change in consumption resulting from a change in the consumer's income holding the prices of the goods constant.
   b. The change in consumption resulting from a change in the consumer's income holding the consumer's level of satisfaction constant.
   c. The change in consumption resulting from a change in the price of one good holding the consumer's level of satisfaction constant.
   d. The change in consumption resulting from a change in the price of one good allowing the consumer's level of satisfaction to change.

**Scenario 4:** There is a market where only one company sells hardware items: Home Depot. However, Lowes could potentially enter the market. This situation will be modeled with following game tree (where “War” denotes Home Depot engaging in a price war and “Peace” denotes Home Depot not engaging in a price war. Lowes’ profits are shown first, then Home Depot’s profits.).

35. Refer to **Scenario 4**. Which of the following will be the outcome of this game?
   a. Lowes doesn’t enter and the payoffs are (0M, 1.6M)
   b. Lowes enters, Home Depot peacefully accepts the new competition and the payoffs the firms get are (0.8M, 1.2M)
   c. Lowes enters, Home Depot engages in a price war and the payoffs the firms get are (0.8M, 1.2M)
   d. Lowes enters, Home Depot engages in a price war and the payoffs the firms get are (-0.1M, 0.6M)

36. Refer to **Scenario 4**. Add the following assumption: Before Lowes makes its decision, Home Depot sends a letter to Lowes that threatens Lowes with a price war upon entrance. Which of the following will now be the outcome?
   a. Lowes doesn’t enter and the payoffs are (0M, 1.6M)
   b. Lowes enters, Home Depot peacefully accepts the new competition and the payoffs the firms get are (0.8M, 1.2M)
   c. Lowes enters, Home Depot engages in a price war and the payoffs the firms get are (0.8M, 1.2M)
   d. Lowes enters, Home Depot engages in a price war and the payoffs the firms get are (-0.1M, 0.6M)
37. Refer to Scenario 4. Add the following assumption: Home Depot builds a new warehouse which enables it to quickly and cheaply transport hardware items to its stores during a price war, causing the payoffs from a price war to become (-0.1M, 1.3M). All other payoffs remain the same. Which of the following will now be the outcome?
   a. Lowes does not enter and the payoffs are (0M, 1.6M)
   b. Lowes enters, Home Depot peacefully accepts the new competition, and the payoffs the firms get are (0.8M, 1.2M).
   c. Lowes enters, Home Depot peacefully accepts the new competition, and the payoffs the firms get are (-0.1M, 1.3M).
   d. Lowes enters, Home Depot engages in a price war, and the payoffs the firms get are (-0.1M, 1.3M).

38. What are the two effects of a change in a price that a consumer experiences?
   a. the income effect and the budget effect
   b. the complement effect and the substitute effect
   c. the price effect and the preference effect
   d. the income effect and the substitution effect

Scenario 5: Rocchetta Industries manufactures and supplies bottled water in Mexico. As a result of a contamination of water supplies at many of Mexico's resort communities, the demand for bottled water has increased.

39. Refer to Scenario 5. When the labor market adjusts to its new equilibrium, we would expect the
   a. Rocchetta’s marginal product of labor to be higher than it was before the increase in demand for bottled water.
   b. Rocchetta’s value of the marginal product of labor to be higher than it was before the increase in demand for bottled water.
   c. price of bottled water to be lower than it was before the increase in demand for bottled water.
   d. wages of Rocchetta workers to be lower than they were before the increase in demand for bottled water.

Scenario 6: Suppose that a worker in Cornland can grow either 40 bushels of corn or 10 bushels of oats per year, and a worker in Oatland can grow either 5 bushels of corn or 50 bushels of oats per year. There are 20 workers in Cornland and 20 workers in Oatland. If the two countries do not trade, Cornland will produce and consume 400 bushels of corn and 100 bushels of oats, while Oatland will produce and consume 60 bushels of corn and 400 bushels of oats.

40. Refer to Scenario 6: If each country made the decision to specialize in producing the good in which it has a comparative advantage, then the combined yearly output of the two countries would become
   a. 800 bushels of corn and 1000 bushels of oats.
   b. 100 bushels of corn and 200 bushels of oats.
   c. 900 bushels of corn and 0 bushels of oats.
   d. 0 bushels of corn and 1200 bushels of oats.
41. Refer to Figure 5. The shift of the labor demand curve from $D_1$ to $D_2$ could possibly be explained by
   a. a change in workers' attitudes toward the work-leisure tradeoff.
   b. decreases in wages in other labor markets.
   c. an increase in the price of firms' output.
   d. All of the above are correct.

42. Suppose that workers immigrate to Minnesota from Canada. Which of the following correctly
describes what would happen in the market for labor in Minnesota assuming the production function
exhibits diminishing marginal product?
   a. The equilibrium wage would increase, and the quantity of labor employed would increase. With
      more workers, the added output from an extra worker is larger.
   b. The equilibrium wage would decrease, and the quantity of labor employed would decrease. With
      fewer workers, the added output from an extra worker is smaller.
   c. The equilibrium wage would decrease, and the quantity of labor employed would increase. With
      more workers, the added output from an extra worker is smaller.
   d. The equilibrium wage would decrease, and the quantity of labor employed would increase. With
      more workers, the added output from an extra worker is larger.
43. Refer to Figure 6. If Enid must work 0.25 hour to produce each taco, then her production possibilities frontier is based on how many hours of work?
   a. 40 hours
   b. 400 hours
   c. 100 hours
   d. 1600 hours

44. Refer to Figure 6. If Bob and Enid each divide their time equally between the production of tacos and burritos, then their total production is
   a. 200 tacos and 150 burritos.
   b. 400 tacos and 250 burritos.
   c. 400 tacos and 300 burritos.
   d. 800 tacos and 500 burritos.

45. Refer to Figure 6. If the production possibilities frontiers shown are each for one month of production, then which of the following combinations of tacos and burritos could Bob and Enid together produce in a given month?
   a. 400 tacos and 350 burritos
   b. 500 tacos and 250 burritos
   c. 600 tacos and 150 burritos
   d. 700 tacos and 100 burritos

46. If the minimum wage exceeds the equilibrium wage, then
   a. the quantity demanded of labor will exceed the quantity supplied.
   b. the quantity supplied of labor will exceed the quantity demanded.
   c. the minimum wage will not be binding.
   d. there will be no unemployment.

47. Which of the following would cause price of beer to increase?
   a. an increase in the supply of beer.
   b. a decrease in demand for beer.
   c. an increase in the price of a substitute for beer.
   d. an increase in the price of a complement to beer.
48. Total surplus
   a. can be used to measure a market’s efficiency.
   b. is the sum of consumer and producer surplus.
   c. is the value to buyers minus the cost to sellers.
   d. All of the above are correct.

**Scenario 7:** Wanda owns a lemonade stand. She produces lemonade using five inputs: water, sugar, lemons, paper cups, and labor. Her costs per glass are as follows: $0.01 for water, $0.02 for sugar, $0.03 for lemons, $0.02 for cups, and $0.10 for the opportunity cost of her labor. She can sell 300 glasses for $0.50 each.

49. Refer to **Scenario 7**. What is Wanda’s total accounting profit?
   a. $150
   b. $126
   c. $96
   d. $24

50. Refer to **Scenario 7**. What is Wanda’s total economic profit?
   a. $150
   b. $126
   c. $96
   d. $54

51. Which of these curves is the competitive firm's short-run supply curve?
   a. the average variable cost curve above marginal cost
   b. the average total cost curve above marginal cost
   c. the marginal cost curve above average variable cost
   d. the average fixed cost curve
Scenario 8: Consider the town of Tritown with only three residents, Ed, Jim, and Tony. The three residents are trying to determine how large, in acres, they should build the public park. The table below shows each resident’s willingness to pay for each acre of the park.

<table>
<thead>
<tr>
<th>Acres</th>
<th>Ed</th>
<th>Jim</th>
<th>Tony</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>$12</td>
<td>$16</td>
<td>$28</td>
</tr>
<tr>
<td>2</td>
<td>8</td>
<td>12</td>
<td>24</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
<td>8</td>
<td>20</td>
</tr>
<tr>
<td>4</td>
<td>2</td>
<td>4</td>
<td>16</td>
</tr>
<tr>
<td>5</td>
<td>0</td>
<td>1</td>
<td>12</td>
</tr>
<tr>
<td>6</td>
<td>0</td>
<td>0</td>
<td>8</td>
</tr>
<tr>
<td>7</td>
<td>0</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

52. Refer to Scenario 8. Suppose the cost to build the park is $14 per acres. How large should the park be to maximize total surplus from the park in Tritown?
   a. 2 acres
   b. 3 acres
   c. 4 acres
   d. 5 acres

53. Refer to Scenario 8. Suppose the cost to build the park is $30 per acre. How many acres should the park be to maximize total surplus from the park in Tritown?
   a. 2 acres
   b. 3 acres
   c. 4 acres
   d. 5 acres

54. Refer to Scenario 8. Suppose the cost to build the park is $30 per acre and that the residents have agreed to split the cost of building the park equally. If the residents vote to determine the size of park to build, basing their decision solely on their own willingness to pay (and trying to maximize their own surplus), what is the largest park size for which the majority of residents would vote “yes?”
   a. 0 acres
   b. 1 acres
   c. 2 acres
   d. 3 acres

55. Consider the following statement: “Monopolists do not worry about efficient production and minimizing costs since they can just pass along any increase in costs to their consumers.” This statement is
   a. false; price increases will mean fewer sales, which may lower profits.
   b. true; this is the primary reason why economists believe that monopolies result in economic inefficiency.
   c. false; the monopolist is a price taker.
   d. true; consumers in a monopoly market have no substitutes to turn to when the monopolist raises prices.
**Scenario 9:** The following table describes a two player game. Row player has two strategies and Column player has four strategies. The first number in each cell indicates the payoff to the Row player, the second number indicates the payoff to the Column player.

<table>
<thead>
<tr>
<th></th>
<th>C1</th>
<th>C2</th>
<th>C3</th>
<th>C4</th>
</tr>
</thead>
<tbody>
<tr>
<td>R1</td>
<td>(20,3)</td>
<td>(80,2)</td>
<td>(35,20)</td>
<td>(43,5)</td>
</tr>
<tr>
<td>R2</td>
<td>(50,10)</td>
<td>(100,4)</td>
<td>(45,4)</td>
<td>(50,4.5)</td>
</tr>
</tbody>
</table>

56. Refer to **Scenario 9.** Which column represents a dominated strategy for the Column player?
   a. C1
   b. C2
   c. C3
   d. C4

57. Refer to **Scenario 9.** What is the equilibrium outcome of the game?
   a. (R2,C1)
   b. (R2,C2)
   c. (R1,C3)
   d. (R2,C4).

**Scenario 10:** There are two villages, North Village and South Village, on opposite sides of a lake. Each village chooses between fishing all day or just in the afternoon. If they fish in the afternoon only, they can spend the morning hunting. The villages must choose between one of these two options (they cannot play a mixed/random strategy).

58. Refer to **Scenario 10.** Suppose these two villages cannot observe what the other village is doing until they are actually fishing in their boats out on the lake. They have identical technologies, so the payoffs (in pounds of food) can be described by following table. For example, (3,10) indicates that South Village gets 3 pounds and North Village gets 10 pounds of fish:

<table>
<thead>
<tr>
<th></th>
<th>Afternoon Only</th>
<th>Full Day</th>
</tr>
</thead>
<tbody>
<tr>
<td>Afternoon Only</td>
<td>(8,8)</td>
<td>(3,10)</td>
</tr>
<tr>
<td>Full Day</td>
<td>(10,3)</td>
<td>(6,6)</td>
</tr>
</tbody>
</table>

What is the Nash equilibrium outcome of this situation (game)?
   a. Both villages fish the full day.
   b. Both villages fish in the afternoon only.
   c. One village fishes in the afternoon only and the other village fishes the full day.
   d. There is no Nash equilibrium.
Refer to Scenario 10. Suppose South Village obtains several new technologies that make them better at fishing and hunting. Meanwhile, North Village obtains binoculars, so they can now see what South Village chooses to do each morning and react to South’s decision. (That is, South “plays” first.) South has heard of North’s binoculars but does not have any binoculars, and vice versa. Now, the payoffs can be described by following game tree. (South Village payoffs shown first again.)

59. What is the Nash equilibrium outcome of the situation (game) in the modified Scenario 10 above?
   a. South Village fishes the full day and North Village fishes in the afternoon.
   b. South Village fishes in the afternoon and North Village fishes the full day.
   c. Both villages fish the full day.
   d. There is no Nash equilibrium.

60. Which curve cannot be a representation of indifference curves?
   a. Figure A
   b. Figure B
   c. Figure C
   d. They all represent possible indifference curves.