Suppose that there are just two firms in a small market. Acme Manufacturing’s Total Costs equal $100 + $3 Qty. Generic Industries’ Total Costs equal $500 + $3 Qty.

1. Compare cost functions at the two firms. Which statement is true?
   A. Acme will always have lower marginal costs than Generic.
   B. Acme and Generic have equal marginal costs.
   C. Marginal costs at each firm will depend on the quantity, or output, of the firms.
   D. Acme has greater economies of scale than does Generic.

2. Suppose a monopolist sells one version of its output to consumers and another version to businesses. The marginal cost of the consumer version is $5 per unit while the business version has marginal costs of $5.75. If resale is impossible, one can infer that
   A. the monopolist will charge two different prices and is not practicing price discrimination.
   B. the monopolist will charge a uniform price to both consumers and businesses.
   C. the monopolist will charge two different prices and is perfectly price discriminating.
   D. the monopolist will charge two different prices and is imperfectly price discriminating.

3. A consumer has a reservation price of $90 for a blender. If the local store is offering the blender for $100 with a $10 rebate and he does not make the purchase, one can surmise that
   A. his reservation price was too high.
   B. his reservation price was too low.
   C. the hurdle was too high.
   D. the hurdle was too low.

4. Industries in which the firms have large fixed costs and small, constant marginal costs will, over time,
   A. have more and more small firms.
   B. see an increase in the average size of firms.
   C. see no change in the average size of firms.
   D. see no change in the average number of firms.
5. Which of the following is not an example of the hurdle method of price discrimination?
A. A rebate offer
B. Eliminating all sales specials and reducing all prices by 10%
C. After-Christmas sales
D. Weekly grocery store coupon fliers

Imagine that you are an entrepreneur, making designer T-shirts in your garage. Your accountant has estimated that your firm's total costs are $\text{TC} = 300 + 10Q$.

6. Your fixed costs are _______ and your marginal costs are _____.
A. $300; 10$
B. $300/Q; 30$
C. $300; 10$ times quantity
D. $300/Q; 10$

![Graph showing marginal cost equals average total cost (MC = ATC) and demand curve (D) intersecting at point 50 textbooks per week.](image-url)
7. Refer to the figure above. The profit-maximizing level of output for the monopolist is ____ and the profit-maximizing price is ______.
A. 50; $20
B. 33.33; $13.33
C. 33.33; $26.67.
D. 50; $26.67

8. Refer to the figure above. If the firm does not price discriminate, this monopolist will choose a quantity of ______, and charge a price of ______.
A. 10; $22
B. 10; $10
C. 12; $20
D. 5; $12
9. Refer to the figure above. If this firm were to sell 20 units of output, its total revenue would be
   A. $50.
   B. $100.
   C. $140.
   D. $1,000.

<table>
<thead>
<tr>
<th>Output</th>
<th>Price</th>
<th>Marginal Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>$10</td>
<td>$6</td>
</tr>
<tr>
<td>2</td>
<td>$9</td>
<td>$6</td>
</tr>
<tr>
<td>3</td>
<td>$8</td>
<td>$6</td>
</tr>
<tr>
<td>4</td>
<td>$7</td>
<td>$6</td>
</tr>
<tr>
<td>5</td>
<td>$6</td>
<td>$6</td>
</tr>
<tr>
<td>6</td>
<td>$5</td>
<td>$6</td>
</tr>
<tr>
<td>7</td>
<td>$4</td>
<td>$6</td>
</tr>
<tr>
<td>8</td>
<td>$3</td>
<td>$6</td>
</tr>
</tbody>
</table>

10. Refer to the figure above. The marginal revenue of the fifth unit of output is
    A. 0.
    B. $2.
    C. $6.
    D. -$2.

11. Refer to the figure above. The marginal revenue of the third unit of output is
    A. $24.
    B. $6.
    C. $2.
    D. $0.
12. Refer to the figure above. The marginal revenue of selling the 4th unit, for the monopolist is ______ while for the perfectly competitive firm it is ______.
A. $10; $2
B. $10; $4
C. $4; $10
D. $0; $12

13. For perfectly competitive firms price _____ marginal revenue; for monopolists price ____ marginal revenue.
A. equals; equals
B. equals; is less than
C. is less than; equals
D. equals; is greater than

14. Compared to a monopolist charging a single price to everyone, perfect price discrimination makes
A. the monopolist better off and all consumers worse off.
B. society worse off.
C. the monopolist worse off and consumers better off.
D. the monopolist and some consumers better off.
15. Refer to the figure above. The distance representing the profit maximizing price to the monopolist is
A. 0C.
B. GI.
C. 0B.
D. 0A.

16. Suppose a monopolist charges a uniform price of $10 based on profit maximization and has constant marginal costs of $3. Cody is willing to pay $6 for the monopolist's output. Therefore,
A. the monopolist should lower its price to $6 for all consumers.
B. the monopolist should ignore Cody's want; it is already profit maximizing.
C. if resale of the output is impossible, the monopolist should lower its price to $6 just for Cody.
D. the monopolist will not be better off if it lowers its price to $6 just for Cody.

17. If each firm is making the same quantity,
A. Acme has lower average total costs than Generic.
B. Acme's average total costs are equal to Generic's variable costs.
C. Acme has higher average total costs than Generic.
D. at some levels of output, Acme's average total costs are less than Generic's, but at some levels of output, Generic's average costs are less than Acme's.

18. Products have network economies if they
A. can be used by more than one person at a time.
B. are cheaper to produce as more people buy them.
C. are more valuable to own as more people own them.
D. have many complements.
19. Refer to the figure above. The _________ at the socially efficient level of output will be _________ at the profit maximizing level of output.
A. loss; smaller than
B. profit; smaller than
C. loss; larger than
D. profit; larger than

20. Refer to the figure above. The socially optimal equilibrium would yield consumer surplus equal to the area _______.
A. LEI
B. GCEI
C. 0GI
D. GJI

21. Pure monopoly exists when
A. many firms produce a good with no close substitutes.
B. a single firm produces a good with no close substitutes.
C. a single firm is present in the market.
D. a single firm produces a good with many close substitutes.
Campus Bookstore is the only textbook supplier in the town, a profit-maximizing business.

<table>
<thead>
<tr>
<th>Customer</th>
<th>Reservation Price ($/book)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q</td>
<td>60</td>
</tr>
<tr>
<td>R</td>
<td>54</td>
</tr>
<tr>
<td>S</td>
<td>48</td>
</tr>
<tr>
<td>T</td>
<td>42</td>
</tr>
<tr>
<td>U</td>
<td>36</td>
</tr>
<tr>
<td>V</td>
<td>30</td>
</tr>
<tr>
<td>W</td>
<td>24</td>
</tr>
<tr>
<td>X</td>
<td>18</td>
</tr>
</tbody>
</table>

Assume that the marginal and average total cost for each book is $12.

22. When the bookstore does not price discriminate, consumer surplus is ________, and when the bookstore can charge two different prices for this book, the consumer surplus will be ________.

A. $50; $60  
B. $60; $66  
C. $66; $66  
D. $66; $128

23. Start up costs are
A. irrelevant in firm decision making because they are sunk costs.  
B. inversely related to variable costs.  
C. one-time costs of starting production of a new product.  
D. always greater than marginal costs.

24. For all firms, the additional revenue collected from the sale of one additional unit of output is
A. price.  
B. average revenue.  
C. marginal profit.  
D. marginal revenue.

25. Which of the following industries does not fit the natural monopoly model?
A. Electricity  
B. Cable TV  
C. Diamonds  
D. Natural gas
26. Suppose that Acme and Generic face the same demand function, that they are both pursuing a profit maximization policy, and that both companies are earning positive economic profits at that quantity. Which statement is true?
A. Acme will produce more output than Generic.
B. Generic will produce more output than Acme.
C. Acme and Generic will produce the same quantity and will have the same profits.
D. Acme and Generic will produce the same quantity, but Acme will have higher profits.

27. Refer to the figure above. At the price of $6 per unit of output, this monopolist will sell _____ units and a perfect competitor will sell _____ units.
A. 6; 6
B. more than 6; 6
C. less than 6; more than 6
D. 6; as many as it wants to

28. Refer to the figure above. The difference between consumer surplus given the monopoly market structure and consumer surplus with the socially efficient quantity is the area _______.
A. LEI
B. GCEI
C. 0GI
D. GCEL

29. If the bookstore is selling the socially efficient number of books, how many will it sell?
A. 8
B. 5
C. 6
D. 7

30. The hurdle method of price discrimination is _____ efficient, however, it is _____ efficient than charging a single price to all buyers.
A. not perfectly; more
B. not perfectly; less
C. not; less
D. perfectly; less
31. According to the textbook, in the game where player A divides a sum of money and then player B accepts or rejects the division, the most common distribution for A to propose is
A. 99% for A and 1% for B.
B. 80% for A and 20% for B.
C. 50% for A and 50% for B.
D. 70% for A and 30% for B.

32. Cartels would be more stable if
A. firms that cheat on the agreement could be legally punished.
B. firms that cheat on the agreement were better informed about the value of agreement.
C. demand for the output was more variable.
D. the cartel profit were higher than the profit each individual firm could earn without the cartel.

P-TV and QRS-TV are planning their fall line-up. Suppose that sit-coms are more popular than reality shows, and so generate more advertising revenue than do reality shows, but they are more expensive to produce since real actors must be hired. In the following decision tree, QRS-TV announces its decision first and P-TV observes that choice before it decides whether to air a sit-com in the same time slot or a reality show. Both stations know all of the information shown in this diagram when they make their decisions.

33. Given the information in this decision tree, this season programming in this time slot on QRS-TV and P-TV will be
A. only reality shows.
B. only sit-coms.
C. a sit-com on QRS-TV and a reality show on P-TV.
D. a reality show on QRS-TV and a sit-com on P-TV.

34. The tit-for-tat strategy only works for prisoner's dilemma games that
A. have only one Nash equilibrium.
B. are played only one time.
C. have no Nash equilibrium.
D. are repeated.
One thousand adults live in Milltown. All of them leave work at 4:30 p.m. everyday and arrive home at exactly 5:00. They all go to bed at 9 p.m. Three fundraisers, Alpha, Beta, and Charlie, have targeted Milltown's population. Because the charities raising the funds are identical, the first to call a willing donor will get the donation.

35. Calls made by fundraisers at each firm will tend to
A. be evenly distributed throughout the evening.
B. cluster near 5:00 p.m.
C. cluster near 6:00 p.m.
D. cluster near 7:00 p.m.

36. Beta's manager has decided that the best time to call is 7:00 because it is exactly halfway between 5:00 p.m. and bedtime.
A. Beta is certain to generate the most donations because all potential donors are 2 hours or less away from a phone call.
B. Alpha and Charlie will have an incentive to also make calls at 7:00, causing clustering at the halfway point in the evening.
C. Alpha and Charlie will divide up the rest of the market, with one choosing to call at 6:00 and the other at 8:00.
D. Beta's manager did not choose wisely.

Joe is the owner of the 7-11 Mini Mart, Sam is the owner of the SuperAmerica Mini Mart and together they are the only gas stations in town. At the current price of $3 per gallon, both receive total revenues of $1,000. Joe is considering cutting his price to $2.90, which would increase his total revenue to $1,350 if Sam continues to charge $3. If Sam's price remains $3 after Joe cuts his price, Sam will collect $500 in revenues. If Sam cuts his price to $2.90, his total revenues would also rise to $1,350 if Joe continues to charge $3. Joe will collect $500 in revenues if he keeps his price at $3 while Sam lowers his to $2.90. Joe and Sam will receive $900 each in total revenue if they both lower their price to $2.90. You may find it easier to answer the following questions if you fill in the payoff matrix below.

<table>
<thead>
<tr>
<th></th>
<th>Joe Cut Price</th>
<th>Joe Keep Old Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sam Cut Price</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sam Keep Old Price</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
37. To Sam, cutting his price to $2.90 is a(n) 
A. revenue maximizing strategy.
B. dominant strategy.
C. dominated strategy.
D. profit maximizing strategy.

<table>
<thead>
<tr>
<th>Player A</th>
<th>Player B</th>
</tr>
</thead>
<tbody>
<tr>
<td>LEFT</td>
<td>RIGHT</td>
</tr>
<tr>
<td><strong>UP</strong></td>
<td>5 for A</td>
</tr>
<tr>
<td></td>
<td>10 for A</td>
</tr>
<tr>
<td></td>
<td>30 for B</td>
</tr>
<tr>
<td></td>
<td>12 for B</td>
</tr>
<tr>
<td><strong>DOWN</strong></td>
<td>-2 for A</td>
</tr>
<tr>
<td></td>
<td>8 for A</td>
</tr>
<tr>
<td></td>
<td>10 for B</td>
</tr>
<tr>
<td></td>
<td>15 for B</td>
</tr>
</tbody>
</table>

38. Refer to the figure above. How many equilibria are there? 
A. 0 
B. 1 
C. 2 
D. 3

In the above decision tree, Tracy picks first and Amy picks second. Tracy knows Amy's payoffs to each choice and Amy knows Tracy's payoffs.

39. The equilibrium to the game results in _______ for Amy and Tracy relative to what they would receive if they could solve their _______.
A. lower payoffs; prisoner's dilemma 
B. higher payoffs; commitment problem 
C. lower payoffs; credible threat 
D. lower payoffs; commitment problem
Suppose Jordan and Lee are trying to decide what to do on a Friday. Jordan would prefer to see a comedy while Lee would prefer to see a documentary. One documentary and one comedy are showing at the local cinema. The utilities they receive from seeing the films either together or separately are shown in the payoff matrix. Both Jordan and Lee know the information contained in the payoff matrix. They purchase their tickets simultaneously, ignorant of the other's choice.

<table>
<thead>
<tr>
<th></th>
<th>Jordan</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Comedy</td>
<td>Documentary</td>
</tr>
<tr>
<td>Lee</td>
<td>Lee: 3</td>
<td>Lee: 1</td>
</tr>
<tr>
<td></td>
<td>Jordan: 5</td>
<td>Jordan: 1</td>
</tr>
<tr>
<td></td>
<td>Lee: 2</td>
<td>Lee: 5</td>
</tr>
<tr>
<td></td>
<td>Jordan: 2</td>
<td>Jordan: 3</td>
</tr>
</tbody>
</table>

40. Lee has
A. no dominant strategy.
B. a dominant strategy of seeing a comedy.
C. a dominant strategy of seeing a documentary.
D. two dominant strategies, depending on Jordan's choice.

The numbers in each cell are each firm's profits.

<table>
<thead>
<tr>
<th>Row Restaurant</th>
<th>Column Cafe</th>
<th>Publish Coupons in Student Paper</th>
<th>No Coupons</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Row: 25, Column: 25</td>
<td>Row: 200,</td>
</tr>
<tr>
<td>Publish Coupons</td>
<td></td>
<td></td>
<td>Column: 10</td>
</tr>
<tr>
<td>in Student Paper</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No Coupons</td>
<td></td>
<td>Row: 10, Column: 200</td>
<td>Row: 120,</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Column: 120</td>
</tr>
</tbody>
</table>

41. The payoffs of this game are such that
A. if Row Restaurant expects that Column Cafe will choose its dominant strategy, Row should choose to not follow its own dominant strategy.
B. profits at both firms would be highest if both firms follow their dominant strategies.
C. both firms would benefit from a law that made publishing coupons illegal.
D. an agreement to not publish coupons would be stable because with these profits neither firm has an incentive to defect.
Quick Buck and Pushy Sales produce and sell identical products and face zero marginal and average cost. Below is the market demand curve for the product.

![Market Demand Curve]

42. Suppose Quick Buck cheats on Pushy Sales and reduces its price to $1.00 each while Pushy Sales continues to comply with the collusive agreement. What will be the economic profit for Quick Buck?
   A. $6,000
   B. $1,500
   C. $2,000
   D. $3,000

Lee and Cody are competitors. Each is considering whether to take aggressive action against the other or to cooperate. Cody can observe Lee's decision. Their decision tree can be diagrammed as follows:

```
   Lee
   /   \
Aggression Cooperation
  /     \
Cody    Cody
```

- **Lee:**
  - Aggression: Lee: -10; Cody: -10
  - Cooperation: Lee: 40; Cody: 0
- **Cody:**
  - Aggression: Lee: 0; Cody: 40
  - Cooperation: Lee: 25; Cody: 25
43. Suppose Cody tells Lee that any aggression on Lee's part will be met with aggression, but that if Lee cooperates, Cody will respond cooperatively. Cody's statement is
A. a commitment device.
B. a non-credible threat and promise.
C. a description of the two equilibria for this game.
D. a credible threat and promise.

<table>
<thead>
<tr>
<th></th>
<th>Column Cruises</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Offer Reduced Summer Rates</td>
</tr>
<tr>
<td>Row Resorts</td>
<td></td>
</tr>
<tr>
<td>Offer Reduced Summer Rates</td>
<td>Row: 50, Column: 50</td>
</tr>
<tr>
<td>Keep Rates High in Summer</td>
<td>Row: 10, Column: 500</td>
</tr>
</tbody>
</table>

44. Refer to the figure above. If Row Resorts decides to lower its rates for the summer, Column Cruises would make the most profit if it
A. kept its rates high for the summer.
B. also lowered its rates for the summer.
C. entered into a cartel with Row Resorts and agreed to jointly reduce rates.
D. It doesn't matter which strategy is chosen because Column Cruises will have the same payoff in either case.

Suppose there are two small island countries: Avarice, which is populated by people who are completely self-interested and Altruism, which is populated by people who have adopted social norms of generosity and cooperation.

45. If two residents of Avarice play the Prisoner's Dilemma game, they are likely to
A. never reach the Nash Equilibrium.
B. reach the Nash Equilibrium more often than would residents of Altruism.
C. reach the Nash Equilibrium less often than would residents of Altruism.
D. play their dominated strategies more often than would residents of Altruism.
Mexico and the members of OPEC produce crude oil. Realizing that it would be in their best interests to form an agreement on production goals, a meeting is arranged and an informal, verbal agreement is reached. If both Mexico and OPEC stick to the agreement, OPEC will earn profits of $200 million and Mexico will earn profits of $100 million. If both Mexico and OPEC cheat, then OPEC will earn $175 million and Mexico will earn $80 million. If only OPEC cheats, then OPEC earns $185 million and Mexico $60 million. If only Mexico cheats, then Mexico earns $110 million and OPEC $150 million.

<table>
<thead>
<tr>
<th></th>
<th>OPEC</th>
<th>Abide</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cheat</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Abide</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

46. Suppose Mexico picks its strategy first and OPEC knows what they choose. OPEC told Mexico that in the event Mexico cheats on the agreement, OPEC will cheat as well but if Mexico does not cheat, neither will OPEC. This is an example of a(n) ________ and the outcome is that ________.
A. commitment problem; neither will cheat
B. credible threat and promise; neither will cheat
C. prisoner's dilemma; both will cheat
D. not credible threat or promise; both will cheat

47. An agreement among firms to restrict production with the goal of earning economic profits is a
A. pure monopoly.
B. oligopoly.
C. cartel.
D. duopoly.
Suppose Acme and Mega produce and sell identical product with zero marginal and average cost. Following is the market demand curve for the product.

48. Suppose Mega and Acme have colluded to work as a pure monopolist, but Mega cheats on Acme and reduces its price to $1.00 each. How much profit will Mega earn?
A. $75  
B. $100  
C. $150  
D. $200

49. If Column Cafe offers coupons, and Row Restaurants does not publish coupons,
A. Row Restaurant will earn $10 in profits, and Column Cafe will earn 200 in profits.  
B. both Row Restaurant and Column Cafe will earn 25 in profits.  
C. Row Restaurant will earn profits of 200 and Column Cafe will earn profits of 10.  
D. both Row Restaurant and Column Cafe will earn profits of 120.

50. A ____ describes all of the possible moves in a game in sequence and the payoffs to each possible combination of moves.
A. decision tree  
B. payoff matrix  
C. game graph  
D. multi-period game
51. Refer to the figure above. If the firm were forced to pay the external cost, the firm would
A. increase the price of paper by the full amount of the external cost.
B. be unable to increase the price of paper, and so would bear the entire burden of the increased cost.
C. produce more paper than it does at the private market equilibrium
D. share the burden of the higher cost with paper consumers.

52. Suppose the size of all cars increased by 25%. Car accidents between two cars would cause ______ and air pollution would ______.
A. less injury; increase
B. greater injury; increase
C. neither greater nor less injury; remain the same
D. neither greater nor less injury; increase

53. In order to achieve a socially optimal level of output, production that generates positive externalities should be
A. required.
B. subsidized.
C. conducted by the government.
D. deregulated.
54. From the perspective of an externality, most communities have zoning laws to
A. control external benefits.
B. control external costs.
C. encourage positive externalities.
D. raise government revenues.

Suppose Erie Textiles can dispose of its waste "for free" by dumping it into a nearby river. While the firm benefits from dumping waste into the river, the waste reduces the fish and bird reproduction. This causes damage to local fishermen and bird watchers. At a cost, Erie Textiles can filter out the toxins, in which case local fishermen and bird watchers will not suffer any damage. The relevant gains (in thousands of dollars) and losses for the three parties are listed below.

<table>
<thead>
<tr>
<th></th>
<th>With Filter</th>
<th>Without</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gains to Erie</td>
<td>$200</td>
<td>$400</td>
</tr>
<tr>
<td>Fishermen</td>
<td>$180</td>
<td>$50</td>
</tr>
<tr>
<td>Bird Watchers</td>
<td>$130</td>
<td>$25</td>
</tr>
</tbody>
</table>

55. The daily cost (in thousands of dollars) of the filter to Erie Textiles is _______, and the daily net benefit (in thousands of dollars) of the filter to the fishermen and bird watchers is _______.
A. $400; $310
B. $310; $200
C. $200; $75
D. $200; $235

Curly and Moe are considering living alone or being roommates and splitting the rent for the next twelve months. A one bedroom, one bath apartment is $500 per month while a two bedroom, one bath apartment is $800. The one difficulty they have is that Moe snores very loudly. Curly estimates the cost of poor sleep due to Moe's snoring at $150 per month. Moe could obtain a snore-eliminating device for $50 per month.

56. The least costly solution to the externality present in this situation is for
A. Curly to endure Moe's snoring.
B. both to live alone.
C. Moe to eliminate his snoring.
D. Moe to pay Curly for his discomfort.
57. If Erie Textiles does not install the filter, there will be a net social _____ of _____ (in thousands of dollars).
A. loss; $35  
B. gain; $75  
C. loss; $110  
D. gain; $200

Suppose there are ten people playing cards in a room. One of them wants to smoke a cigar; nine of them dislike the smell of cigar smoke. The smoker values the privilege of smoking at $5, and each of the other nine occupants of the room would be willing to pay fifty cents for clean air in the room. The rules governing use of the room state that smoking is not allowed unless everyone agrees to allow smoking.

58. Which outcome is consistent with the Coase Theorem?
A. The cigar smoker will not be able to smoke because there are more non-smokers in the room.  
B. The cigar smoker will pay each other occupant fifty-five cents, and they will agree to allow smoking.  
C. The cigar smoker will smoke because the external cost of smoking does not need to be taken into consideration.  
D. The cigar smoker will pay each other occupant a dollar, and they will agree to allow smoking.

59. Refer to the figure above. A ______ equal to _____ would achieve the social optimum in this market.
A. tax; QS  
B. subsidy; RS  
C. tax; RS  
D. subsidy; QS
60. An effective mechanism to avoid working all day and all night as their employer offers more and more overtime, Fran and Shel could
A. stop independently.
B. not let the other's consumption affect them.
C. lobby for limits on the maximum number of hours in a work week.
D. agree between them to stop this silly game.

61. An external benefit implies that private markets will provide ____ and an external cost implies that private markets will provide ____ of the good (relative to the social optimum).
A. too much; too much
B. too little; too little
C. too much; too little
D. too little; too much

The following data show the relationship between the number of drivers who leave for work at 8:00 am, their average commute times, and their marginal benefit associated with the commute times.

<table>
<thead>
<tr>
<th>Number of drivers that leave at 8:00am</th>
<th>Average commute time to downtown</th>
<th>Marginal Benefit</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>30 minutes</td>
<td>$10</td>
</tr>
<tr>
<td>200</td>
<td>65 minutes</td>
<td>$8</td>
</tr>
<tr>
<td>300</td>
<td>110 minutes</td>
<td>$4</td>
</tr>
<tr>
<td>400</td>
<td>170 minutes</td>
<td>$3</td>
</tr>
<tr>
<td>500</td>
<td>260 minutes</td>
<td>$1</td>
</tr>
</tbody>
</table>

62. The reason drivers would prefer building new roads to a $5 toll to reduce commute times is because
A. building roads is the only cost-effective solution.
B. they know a toll would not alter commuting behavior.
C. a tax solves the commitment problem.
D. the cost of new roads falls on all taxpayers; the toll only falls on those who use the existing road.
63. Refer to the figure above. The deadweight loss associated with private incentives in this market is a triangle with area equal to _______.
A. ½ EF times BC
B. ½ 0C times 0E
C. ½ EF times AC
D. ½ EF times AB

64. Relative to driving an average car, driving a larger-than-average car generates
A. an external cost.
B. an external benefit.
C. neither an external benefit nor an external cost.
D. a prisoners dilemma.

65. In the case of either a positive or negative externality, it will always be true that, relative to the social optimum,
A. the market price will be too low.
B. the market price will be too high.
C. the market price will send an inaccurate signal of true cost or benefit.
D. the quantity provided by the market will be too large.

66. Local fishermen and bird watchers would be willing to compensate Erie Textiles ______ for operating with a filter.
A. up to $310 thousand dollars
B. no more than $235 thousand dollars
C. no more than $75 thousand dollars
D. nothing
67. Refer to the figure above. Private incentives in this market generate deadweight loss equal to _______.
A. $\frac{1}{2} PT \times TV$
B. $\frac{1}{2} PS \times TU$
C. $\frac{1}{2} PR \times UV$
D. $\frac{1}{2} PR \times TU$

68. Assume that the town of Pleasantville has two local TV stations. If one of them invests in the newest weather forecasting technology, one can predict that
A. the other station will continue to use its current technology.
B. to maintain its relative standing, the other station will upgrade its radar technology.
C. to maintain its absolute standing, the other station will upgrade its radar technology.
D. the quality of forecasts will remain unchanged.

Your economics professor has announced the following grading policy: For each exam, the highest score in the class will be entered as a 100%; all other scores will be entered as the percent of that top score. For example, if the highest test score is a 50 out of 100, it will be counted as a perfect paper, and exams with a score of 40 out of 100 will be entered as an 80%. The final grade for the course will be determined using these adjusted percentages, with 90% and above an A, 80% and above a B, 70% and above a C and below 70%, not passing.

69. This grading scheme
A. uses an absolute standard.
B. uses a relative standard.
C. is too confusing to adequately motivate students.
D. is designed to discourage competitive over-studying.

70. Refer to the figure above. From this graph, you can infer that paper production
A. generates no externalities at quantities less than 300 tons per day.
B. generates negative externalities equal to approximately $50 per ton per day.
C. generates negative externalities equal to approximately $25 per ton per day.
D. should be prohibited.
Suppose that there are just two firms in a small market.
Acme Manufacturing’s Total Costs equal $100 + $3 \text{ Qty}.
Generic Industries’ Total Costs equal $500 + $3 \text{ Qty}.

1. Compare cost functions at the two firms. Which statement is true?
A. Acme will always have lower marginal costs than Generic.
B. Acme and Generic have equal marginal costs.
C. Marginal costs at each firm will depend on the quantity, or output, of the firms.
D. Acme has greater economies of scale than does Generic.

2. Suppose a monopolist sells one version of its output to consumers and another version to businesses. The marginal cost of the consumer version is $5 per unit while the business version has marginal costs of $5.75. If resale is impossible, one can infer that
A. the monopolist will charge two different prices and is not practicing price discrimination.
B. the monopolist will charge a uniform price to both consumers and businesses.
C. the monopolist will charge two different prices and is perfectly price discriminating.
D. the monopolist will charge two different prices and is imperfectly price discriminating.
3. A consumer has a reservation price of $90 for a blender. If the local store is offering the blender for $100 with a $10 rebate and he does not make the purchase, one can surmise that
   A. his reservation price was too high.
   B. his reservation price was too low.
   C. the hurdle was too high.
   D. the hurdle was too low.

4. Industries in which the firms have large fixed costs and small, constant marginal costs will, over time,
   A. have more and more small firms.
   B. see an increase in the average size of firms.
   C. see no change in the average size of firms.
   D. see no change in the average number of firms.

5. Which of the following is not an example of the hurdle method of price discrimination?
   A. A rebate offer
   B. Eliminating all sales specials and reducing all prices by 10%
   C. After-Christmas sales
   D. Weekly grocery store coupon fliers

Imagine that you are an entrepreneur, making designer T-shirts in your garage. Your accountant has estimated that your firm's total costs are $TC = 300 + 10*Q$. 

Frank - Chapter 008
6. Your fixed costs are ______ and your marginal costs are ____.

A. $300; 10
B. $300/Q; 30
C. $300; 10 times quantity
D. $300/Q; 10

7. Refer to the figure above. The profit-maximizing level of output for the monopolist is ____ and the profit-maximizing price is ______.

A. 50; $20
B. 33.33; $13.33
C. 33.33; $26.67.
D. 50; $26.67
8. Refer to the figure above. If the firm does not price discriminate, this monopolist will choose a quantity of ______, and charge a price of ______.

A. 10; $22
B. 10; $10
C. 12; $20
D. 5; $12

AACSB: Analytical Skills
Bloom's: Application
Frank - Chapter 008 #114
Learning Objective: 8-6
Section: Using Discounts to Expand the Market
9. Refer to the figure above. If this firm were to sell 20 units of output, its total revenue would be
A. $50.
B. $100.
C. $140.
D. $1,000.

10. Refer to the figure above. The marginal revenue of the fifth unit of output is
A. 0.
B. $2.
C. $6.
D. -$2.

11. Refer to the figure above. The marginal revenue of the third unit of output is
A. $24.
B. $6.
C. $2.
D. $0.
12. Refer to the figure above. The marginal revenue of selling the 4th unit, for the monopolist is ______ while for the perfectly competitive firm it is _____.
A. $10; $2
B. $10; $4
C. $4; $10
D. $0; $12

13. For perfectly competitive firms price _____ marginal revenue; for monopolists price ____ marginal revenue.
A. equals; equals
B. equals; is less than
C. is less than; equals
D. equals; is greater than
14. Compared to a monopolist charging a single price to everyone, perfect price discrimination makes
A. the monopolist better off and all consumers worse off.
B. society worse off.
C. the monopolist worse off and consumers better off.
D. the monopolist and some consumers better off.

15. Refer to the figure above. The distance representing the profit maximizing price to the monopolist is
A. 0C.
B. GI.
C. 0B.
D. 0A.
16. Suppose a monopolist charges a uniform price of $10 based on profit maximization and has constant marginal costs of $3. Cody is willing to pay $6 for the monopolist's output. Therefore,
A. the monopolist should lower its price to $6 for all consumers.
B. the monopolist should ignore Cody's want; it is already profit maximizing.
C. if resale of the output is impossible, the monopolist should lower its price to $6 just for Cody.
D. the monopolist will not be better off if it lowers its price to $6 just for Cody.

AACSB: Analytical Skills
Bloom's: Understanding
Frank - Chapter 008 #111
Learning Objective: 8-6
Section: Using Discounts to Expand the Market

17. If each firm is making the same quantity,
A. Acme has lower average total costs than Generic.
B. Acme's average total costs are equal to Generic's variable costs.
C. Acme has higher average total costs than Generic.
D. at some levels of output, Acme's average total costs are less than Generic's, but at some levels of output, Generic's average costs are less than Acme's.

AACSB: Analytical Skills
Bloom's: Application
Frank - Chapter 008 #40
Learning Objective: 8-3
Section: Economies of Scale and the Importance of Start-Up Costs

18. Products have network economies if they
A. can be used by more than one person at a time.
B. are cheaper to produce as more people buy them.
C. are more valuable to own as more people own them.
D. have many complements.

AACSB: Analytical Skills
Bloom's: Knowledge
Frank - Chapter 008 #16
Learning Objective: 8-2
Section: Five Sources of Market Power
19. Refer to the figure above. The _________ at the socially efficient level of output will be _________ at the profit maximizing level of output.

A. loss; smaller than
B. profit; smaller than
C. loss; larger than
D. profit; larger than

20. Refer to the figure above. The socially optimal equilibrium would yield consumer surplus equal to the area _______.

A. LEI
B. GCEI
C. 0GI
D. GJI
21. Pure monopoly exists when  
A. many firms produce a good with no close substitutes.  
B. a single firm produces a good with no close substitutes.  
C. a single firm is present in the market.  
D. a single firm produces a good with many close substitutes.

AACSB: Analytical Skills  
Bloom's: Knowledge  
Frank - Chapter 008 #2  
Learning Objective: 8-1  
Section: Imperfect Competition

Campus Bookstore is the only textbook supplier in the town, a profit-maximizing business.

<table>
<thead>
<tr>
<th>Customer</th>
<th>Reservation Price ($/book)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q</td>
<td>60</td>
</tr>
<tr>
<td>R</td>
<td>54</td>
</tr>
<tr>
<td>S</td>
<td>48</td>
</tr>
<tr>
<td>T</td>
<td>42</td>
</tr>
<tr>
<td>U</td>
<td>36</td>
</tr>
<tr>
<td>V</td>
<td>30</td>
</tr>
<tr>
<td>W</td>
<td>24</td>
</tr>
<tr>
<td>X</td>
<td>18</td>
</tr>
</tbody>
</table>

Assume that the marginal and average total cost for each book is $12.

Frank - Chapter 008

22. When the bookstore does not price discriminate, consumer surplus is ________, and when the bookstore can charge two different prices for this book, the consumer surplus will be ________.

A. $50; $60  
B. $60; $66  
C. $66; $66  
D. $66; $128  

AACSB: Analytical Skills  
Bloom's: Application  
Frank - Chapter 008 #109  
Learning Objective: 8-6  
Section: Using Discounts to Expand the Market
23. Start up costs are
A. irrelevant in firm decision making because they are sunk costs.
B. inversely related to variable costs.
C. one-time costs of starting production of a new product.
D. always greater than marginal costs.

AACSBS: Analytical Skills
Bloom’s: Knowledge
Frank - Chapter 008 #25
Learning Objective: 8-3
Section: Economies of Scale and the Importance of Start-Up Costs

24. For all firms, the additional revenue collected from the sale of one additional unit of output is
A. price.
B. average revenue.
C. marginal profit.
D. marginal revenue.

AACSBS: Analytical Skills
Bloom’s: Knowledge
Frank - Chapter 008 #44
Learning Objective: 8-4
Section: Profit Maximization for the Monopolist

25. Which of the following industries does not fit the natural monopoly model?
A. Electricity
B. Cable TV
C. Diamonds
D. Natural gas

AACSBS: Analytical Skills
Bloom’s: Understanding
Frank - Chapter 008 #30
Learning Objective: 8-3
Section: Economies of Scale and the Importance of Start-Up Costs

26. Suppose that Acme and Generic face the same demand function, that they are both pursuing a profit maximization policy, and that both companies are earning positive economic profits at that quantity. Which statement is true?
A. Acme will produce more output than Generic.
B. Generic will produce more output than Acme.
C. Acme and Generic will produce the same quantity and will have the same profits.
D. Acme and Generic will produce the same quantity, but Acme will have higher profits.

AACSBS: Reflective Thinking Skills
Bloom’s: Analysis
Frank - Chapter 008 #41
Learning Objective: 8-3
Section: Economies of Scale and the Importance of Start-Up Costs
27. Refer to the figure above. At the price of $6 per unit of output, this monopolist will sell ____ units and a perfect competitor will sell ____ units.
A. 6; 6
B. more than 6; 6
C. less than 6; more than 6
D. 6; as many as it wants to

28. Refer to the figure above. The difference between consumer surplus given the monopoly market structure and consumer surplus with the socially efficient quantity is the area _______.
A. LEI
B. GCEI
C. 0GI
D. GCEL

29. If the bookstore is selling the socially efficient number of books, how many will it sell?
A. 8
B. 5
C. 6
D. 7
30. The hurdle method of price discrimination is _____ efficient, however, it is _____ efficient than charging a single price to all buyers.
A. not perfectly; more  
B. not perfectly; less  
C. not; less  
D. perfectly; less  

AACSB: Analytical Skills  
Bloom's: Understanding  
Frank - Chapter 008 #128  
Learning Objective: 8-6  
Section: Using Discounts to Expand the Market

31. According to the textbook, in the game where player A divides a sum of money and then player B accepts or rejects the division, the most common distribution for A to propose is
A. 99% for A and 1% for B.  
B. 80% for A and 20% for B.  
C. 50% for A and 50% for B.  
D. 70% for A and 30% for B.  

AACSB: Analytical Skills  
Bloom's: Knowledge  
Frank - Chapter 009 #123  
Learning Objective: 9-5  
Section: The Strategic Role of Preferences

32. Cartels would be more stable if
A. firms that cheat on the agreement could be legally punished.  
B. firms that cheat on the agreement were better informed about the value of agreement.  
C. demand for the output was more variable.  
D. the cartel profit were higher than the profit each individual firm could earn without the cartel.  

AACSB: Analytical Skills  
Bloom's: Application  
Frank - Chapter 009 #37  
Learning Objective: 9-3  
Section: The Prisoner's Dilemma
P-TV and QRS-TV are planning their fall line-up. Suppose that sit-coms are more popular than reality shows, and so generate more advertising revenue than do reality shows, but they are more expensive to produce since real actors must be hired. In the following decision tree, QRS-TV announces its decision first and P-TV observes that choice before it decides whether to air a sit-com in the same time slot or a reality show. Both stations know all of the information shown in this diagram when they make their decisions.

Frank - Chapter 009

33. Given the information in this decision tree, this season programming in this time slot on QRS-TV and P-TV will be
A. only reality shows.
B. only sit-coms.
C. a sit-com on QRS-TV and a reality show on P-TV.
D. a reality show on QRS-TV and a sit-com on P-TV.

AACSB: Analytical Skills
Bloom's: Application
Frank - Chapter 009 #118
Learning Objective: 9-5
Section: Commitment Problems

34. The tit-for-tat strategy only works for prisoner's dilemma games that
A. have only one Nash equilibrium.
B. are played only one time.
C. have no Nash equilibrium.
D. are repeated.

AACSB: Analytical Skills
Bloom's: Understanding
Frank - Chapter 009 #62
Learning Objective: 9-3
Section: The Prisoner's Dilemma
One thousand adults live in Milltown. All of them leave work at 4:30 p.m. everyday and arrive home at exactly 5:00. They all go to bed at 9 p.m. Three fundraisers, Alpha, Beta, and Charlie, have targeted Milltown's population. Because the charities raising the funds are identical, the first to call a willing donor will get the donation.

35. Calls made by fundraisers at each firm will tend to
A. be evenly distributed throughout the evening.
B. cluster near 5:00 p.m.
C. cluster near 6:00 p.m.
D. cluster near 7:00 p.m.

36. Beta's manager has decided that the best time to call is 7:00 because it is exactly halfway between 5:00 p.m. and bedtime.
A. Beta is certain to generate the most donations because all potential donors are 2 hours or less away from a phone call.
B. Alpha and Charlie will have an incentive to also make calls at 7:00, causing clustering at the halfway point in the evening.
C. Alpha and Charlie will divide up the rest of the market, with one choosing to call at 6:00 and the other at 8:00.
D. Beta's manager did not choose wisely.
Joe is the owner of the 7-11 Mini Mart, Sam is the owner of the SuperAmerica Mini Mart and together they are the only gas stations in town. At the current price of $3 per gallon, both receive total revenues of $1,000. Joe is considering cutting his price to $2.90, which would increase his total revenue to $1,350 if Sam continues to charge $3. If Sam's price remains $3 after Joe cuts his price, Sam will collect $500 in revenues. If Sam cuts his price to $2.90, his total revenues would also rise to $1,350 if Joe continues to charge $3. Joe will collect $500 in revenues if he keeps his price at $3 while Sam lowers his to $2.90. Joe and Sam will receive $900 each in total revenue if they both lower their price to $2.90. You may find it easier to answer the following questions if you fill in the payoff matrix below.

<table>
<thead>
<tr>
<th></th>
<th>Cut Price</th>
<th>Keep Old Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cut Price</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Keep Old Price</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

37. To Sam, cutting his price to $2.90 is a(n)
A. revenue maximizing strategy.
B. dominant strategy.
C. dominated strategy.
D. profit maximizing strategy.

AASCB: Analytical Skills
Bloom's: Application
Frank - Chapter 009 #16
Learning Objective: 9-2
Section: Using Game Theory to Analyze Strategic Decisions

<table>
<thead>
<tr>
<th>Player A</th>
<th>Player B</th>
</tr>
</thead>
<tbody>
<tr>
<td>UP</td>
<td>LEFT</td>
</tr>
<tr>
<td>5 for A</td>
<td>10 for A</td>
</tr>
<tr>
<td>30 for B</td>
<td>12 for B</td>
</tr>
<tr>
<td>DOWN</td>
<td>-2 for A</td>
</tr>
<tr>
<td>8 for A</td>
<td>15 for B</td>
</tr>
<tr>
<td>10 for B</td>
<td></td>
</tr>
</tbody>
</table>
38. Refer to the figure above. How many equilibria are there?
A. 0
B. 1
C. 2
D. 3

In the above decision tree, Tracy picks first and Amy picks second. Tracy knows Amy's payoffs to each choice and Amy knows Tracy's payoffs.

39. The equilibrium to the game results in _______ for Amy and Tracy relative to what they would receive if they could solve their _______.
A. lower payoffs; prisoner's dilemma
B. higher payoffs; commitment problem
C. lower payoffs; credible threat
D. lower payoffs; commitment problem
Suppose Jordan and Lee are trying to decide what to do on a Friday. Jordan would prefer to see a comedy while Lee would prefer to see a documentary. One documentary and one comedy are showing at the local cinema. The utilities they receive from seeing the films either together or separately are shown in the payoff matrix. Both Jordan and Lee know the information contained in the payoff matrix. They purchase their tickets simultaneously, ignorant of the other's choice.

<table>
<thead>
<tr>
<th></th>
<th>Jordan</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Comedy</td>
</tr>
<tr>
<td>Lee</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lee: 3</td>
</tr>
<tr>
<td></td>
<td>Jordan: 5</td>
</tr>
<tr>
<td></td>
<td>Lee: 2</td>
</tr>
<tr>
<td></td>
<td>Jordan: 2</td>
</tr>
</tbody>
</table>

40. Lee has
A. no dominant strategy.
B. a dominant strategy of seeing a comedy.
C. a dominant strategy of seeing a documentary.
D. two dominant strategies, depending on Jordan's choice.

The numbers in each cell are each firm's profits.

<table>
<thead>
<tr>
<th></th>
<th>Publish Coupons in Student Paper</th>
<th>No Coupons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Row Restaurant</td>
<td>Publish Coupons in Student Paper</td>
<td>Row: 25, Column: 25</td>
</tr>
<tr>
<td></td>
<td>No Coupons</td>
<td>Row: 10, Column: 200</td>
</tr>
</tbody>
</table>
41. The payoffs of this game are such that
A. if Row Restaurant expects that Column Cafe will choose its dominant strategy, Row should choose to not follow its own dominant strategy.
B. profits at both firms would be highest if both firms follow their dominant strategies.  
C. both firms would benefit from a law that made publishing coupons illegal.
D. an agreement to not publish coupons would be stable because with these profits neither firm has an incentive to defect.

Quick Buck and Pushy Sales produce and sell identical products and face zero marginal and average cost. Below is the market demand curve for the product. 

![Market Demand Curve](image-url)
42. Suppose Quick Buck cheats on Pushy Sales and reduces its price to $1.00 each while Pushy Sales continues to comply with the collusive agreement. What will be the economic profit for Quick Buck?
A. $6,000
B. $1,500
C. $2,000
D. $3,000

Lee and Cody are competitors. Each is considering whether to take aggressive action against the other or to cooperate. Cody can observe Lee's decision. Their decision tree can be diagrammed as follows:

```
        Aggression
         /       \
Lee     Cooperation
         \
        /       \
    Aggression
     /         \
Cody  Cooperation
      /           \
    Lee: 40; Cody: 0
```

43. Suppose Cody tells Lee that any aggression on Lee's part will be met with aggression, but that if Lee cooperates, Cody will respond cooperatively. Cody's statement is
A. a commitment device.
B. a non-credible threat and promise.
C. a description of the two equilibria for this game.
D. a credible threat and promise.
44. Refer to the figure above. If Row Resorts decides to lower its rates for the summer, Column Cruises would make the most profit if it

A. kept its rates high for the summer.
B. also lowered its rates for the summer.
C. entered into a cartel with Row Resorts and agreed to jointly reduce rates.
D. It doesn't matter which strategy is chosen because Column Cruises will have the same payoff in either case.

45. If two residents of Avarice play the Prisoner's Dilemma game, they are likely to

A. never reach the Nash Equilibrium.
B. reach the Nash Equilibrium more often than would residents of Altruism.
C. reach the Nash Equilibrium less often than would residents of Altruism.
D. play their dominated strategies more often than would residents of Altruism.
Mexico and the members of OPEC produce crude oil. Realizing that it would be in their best interests to form an agreement on production goals, a meeting is arranged and an informal, verbal agreement is reached. If both Mexico and OPEC stick to the agreement, OPEC will earn profits of $200 million and Mexico will earn profits of $100 million. If both Mexico and OPEC cheat, then OPEC will earn $175 million and Mexico will earn $80 million. If only OPEC cheats, then OPEC earns $185 million and Mexico $60 million. If only Mexico cheats, then Mexico earns $110 million and OPEC $150 million.

<table>
<thead>
<tr>
<th></th>
<th>OPEC</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Cheat</td>
</tr>
<tr>
<td>Mexico</td>
<td>Cheat</td>
</tr>
<tr>
<td></td>
<td>Abide</td>
</tr>
</tbody>
</table>

46. Suppose Mexico picks its strategy first and OPEC knows what they choose. OPEC told Mexico that in the event Mexico cheats on the agreement, OPEC will cheat as well but if Mexico does not cheat, neither will OPEC. This is an example of a(n) ________ and the outcome is that ________.
A. commitment problem; neither will cheat
B. credible threat and promise; neither will cheat
C. prisoner's dilemma; both will cheat
D. not credible threat or promise; both will cheat

47. An agreement among firms to restrict production with the goal of earning economic profits is a
A. pure monopoly.
B. oligopoly.
C. cartel.
D. duopoly.
Suppose Acme and Mega produce and sell identical product with zero marginal and average cost. Following is the market demand curve for the product.

48. Suppose Mega and Acme have colluded to work as a pure monopolist, but Mega cheats on Acme and reduces its price to $1.00 each. How much profit will Mega earn?
   A. $75
   B. $100
   C. $150
   D. $200

49. If Column Cafe offers coupons, and Row Restaurants does not publish coupons,
   A. Row Restaurant will earn $10 in profits, and Column Cafe will earn 200 in profits.
   B. both Row Restaurant and Column Cafe will earn 25 in profits.
   C. Row Restaurant will earn profits of 200 and Column Cafe will earn profits of 10.
   D. both Row Restaurant and Column Cafe will earn profits of 120.
50. A ____ describes all of the possible moves in a game in sequence and the payoffs to each possible combination of moves.
A. decision tree  
B. payoff matrix  
C. game graph  
D. multi-period game

51. Refer to the figure above. If the firm were forced to pay the external cost, the firm would
A. increase the price of paper by the full amount of the external cost.  
B. be unable to increase the price of paper, and so would bear the entire burden of the increased cost.  
C. produce more paper than it does at the private market equilibrium  
D. share the burden of the higher cost with paper consumers.

Suppose that in most car accidents between cars of unequal size, the smaller car sustains the most damage and its occupants suffer the most injury. In answering the following questions, assume that, on average, smaller cars generate less air pollution and that every person in the economy drives at least one car.
52. Suppose the size of all cars increased by 25%. Car accidents between two cars would cause ______ and air pollution would ______.
   A. less injury; increase  
   B. greater injury; increase  
   C. neither greater nor less injury; remain the same  
   **D.** neither greater nor less injury; increase

53. In order to achieve a socially optimal level of output, production that generates positive externalities should be  
   A. required.  
   B. **subsidized.**  
   C. conducted by the government.  
   D. deregulated.

54. From the perspective of an externality, most communities have zoning laws to  
   A. control external benefits.  
   B. **control external costs.**  
   C. encourage positive externalities.  
   D. raise government revenues.
Suppose Erie Textiles can dispose of its waste "for free" by dumping it into a nearby river. While the firm benefits from dumping waste into the river, the waste reduces the fish and bird reproduction. This causes damage to local fishermen and bird watchers. At a cost, Erie Textiles can filter out the toxins, in which case local fishermen and bird watchers will not suffer any damage. The relevant gains (in thousands of dollars) and losses for the three parties are listed below.

<table>
<thead>
<tr>
<th></th>
<th>With Filter</th>
<th>Without</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gains to Erie</td>
<td>$200</td>
<td>$400</td>
</tr>
<tr>
<td>Fishermen</td>
<td>$180</td>
<td>$50</td>
</tr>
<tr>
<td>Bird Watchers</td>
<td>$130</td>
<td>$25</td>
</tr>
</tbody>
</table>

55. The daily cost (in thousands of dollars) of the filter to Erie Textiles is _______, and the daily net benefit (in thousands of dollars) of the filter to the fishermen and bird watchers is _______.
A. $400; $310
B. $310; $200
C. $200; $75
D. $200; $235

Curly and Moe are considering living alone or being roommates and splitting the rent for the next twelve months. A one bedroom, one bath apartment is $500 per month while a two bedroom, one bath apartment is $800. The one difficulty they have is that Moe snores very loudly. Curly estimates the cost of poor sleep due to Moe's snoring at $150 per month. Moe could obtain a snore-eliminating device for $50 per month.

56. The least costly solution to the externality present in this situation is for
A. Curly to endure Moe's snoring.
B. both to live alone.
C. Moe to eliminate his snoring.
D. Moe to pay Curly for his discomfort.
57. If Erie Textiles does not install the filter, there will be a net social _____ of _____ (in thousands of dollars).
A. loss; $35
B. gain; $75
C. loss; $110
D. gain; $200

AACSB: Analytical Skills
Bloom's: Application
Frank - Chapter 010 #44
Learning Objective: 10-2
Section: External Costs and Benefits

Suppose there are ten people playing cards in a room. One of them wants to smoke a cigar; nine of them dislike the smell of cigar smoke. The smoker values the privilege of smoking at $5, and each of the other nine occupants of the room would be willing to pay fifty cents for clean air in the room. The rules governing use of the room state that smoking is not allowed unless everyone agrees to allow smoking.

Frank - Chapter 010

58. Which outcome is consistent with the Coase Theorem?
A. The cigar smoker will not be able to smoke because there are more non-smokers in the room.
B. The cigar smoker will pay each other occupant fifty-five cents, and they will agree to allow smoking.
C. The cigar smoker will smoke because the external cost of smoking does not need to be taken into consideration.
D. The cigar smoker will pay each other occupant a dollar, and they will agree to allow smoking.

AACSB: Analytical Skills
Bloom's: Application
Frank - Chapter 010 #31
Learning Objective: 10-2
Section: External Costs and Benefits
59. Refer to the figure above. A ______ equal to _____ would achieve the social optimum in this market.
A. tax; QS
B. subsidy; RS
C. tax; RS
D. subsidy; QS

60. An effective mechanism to avoid working all day and all night as their employer offers more and more overtime, Fran and Shel could
A. stop independently.
B. not let the other's consumption affect them.
C. lobby for limits on the maximum number of hours in a work week.
D. agree between them to stop this silly game.
61. An external benefit implies that private markets will provide ____ and an external cost implies that private markets will provide _____ of the good (relative to the social optimum).
A. too much; too much
B. too little; too little
C. too much; too little
D. too little; too much

The following data show the relationship between the number of drivers who leave for work at 8:00 am, their average commute times, and their marginal benefit associated with the commute times.

<table>
<thead>
<tr>
<th>Number of drivers that leave at 8:00am</th>
<th>Average commute time to downtown</th>
<th>Marginal Benefit</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>30 minutes</td>
<td>$10</td>
</tr>
<tr>
<td>200</td>
<td>65 minutes</td>
<td>$8</td>
</tr>
<tr>
<td>300</td>
<td>110 minutes</td>
<td>$4</td>
</tr>
<tr>
<td>400</td>
<td>170 minutes</td>
<td>$3</td>
</tr>
<tr>
<td>500</td>
<td>260 minutes</td>
<td>$1</td>
</tr>
</tbody>
</table>

62. The reason drivers would prefer building new roads to a $5 toll to reduce commute times is because
A. building roads is the only cost-effective solution.
B. they know a toll would not alter commuting behavior.
C. a tax solves the commitment problem.
D. the cost of new roads falls on all taxpayers; the toll only falls on those who use the existing road.
63. Refer to the figure above. The deadweight loss associated with private incentives in this market is a triangle with area equal to _______.
A. $\frac{1}{2}$ EF times BC
B. $\frac{1}{2}$ 0C times 0E
C. $\frac{1}{2}$ EF times AC
D. $\frac{1}{2}$ EF times AB

AACSB: Analytical Skills  
Bloom's: Application  
Frank - Chapter 010 #98  
Learning Objective: 10-1  
Section: External Costs and Benefits

64. Relative to driving an average car, driving a larger-than-average car generates
A. an external cost.  
B. an external benefit.  
C. neither an external benefit nor an external cost.  
D. a prisoners dilemma.

AACSB: Analytical Skills  
Bloom's: Application  
Frank - Chapter 010 #113  
Learning Objective: 10-6  
Section: Positional Externalities
65. In the case of either a positive or negative externality, it will always be true that, relative to the social optimum,
A. the market price will be too low.
B. the market price will be too high.
C. the market price will send an inaccurate signal of true cost or benefit.
D. the quantity provided by the market will be too large.

AACSB: Analytical Skills
Bloom's: Understanding
Frank - Chapter 010 #10
Learning Objective: 10-1
Section: External Costs and Benefits

66. Local fishermen and bird watchers would be willing to compensate Erie Textiles ______ for operating with a filter.
A. up to $310 thousand dollars
B. no more than $235 thousand dollars
C. no more than $75 thousand dollars
D. nothing

AACSB: Analytical Skills
Bloom's: Application
Frank - Chapter 010 #45
Learning Objective: 10-2
Section: External Costs and Benefits

67. Refer to the figure above. Private incentives in this market generate deadweight loss equal to _______.
A. \( \frac{1}{2} \) PS times TV
B. \( \frac{1}{2} \) PS times TU
C. \( \frac{1}{2} \) PR times UV
D. \( \frac{1}{2} \) PR times TU

AACSB: Analytical Skills
Bloom's: Application
Frank - Chapter 010 #103
Learning Objective: 10-3
Section: External Costs and Benefits
68. Assume that the town of Pleasantville has two local TV stations. If one of them invests in the newest weather forecasting technology, one can predict that

A. the other station will continue to use its current technology.
B. to maintain its relative standing, the other station will upgrade its radar technology.
C. to maintain its absolute standing, the other station will upgrade its radar technology.
D. the quality of forecasts will remain unchanged.

Your economics professor has announced the following grading policy: For each exam, the highest score in the class will be entered as a 100%; all other scores will be entered as the percent of that top score. For example, if the highest test score is a 50 out of 100, it will be counted as a perfect paper, and exams with a score of 40 out of 100 will be entered as an 80%. The final grade for the course will be determined using these adjusted percentages, with 90% and above an A, 80% and above a B, 70% and above a C, below 70%, not passing.

69. This grading scheme

A. uses an absolute standard.
B. uses a relative standard.
C. is too confusing to adequately motivate students.
D. is designed to discourage competitive over-studying.

70. Refer to the figure above. From this graph, you can infer that paper production

A. generates no externalities at quantities less than 300 tons per day.
B. generates negative externalities equal to approximately $50 per ton per day.
C. generates negative externalities equal to approximately $25 per ton per day.
D. should be prohibited.
# Study Guide Exam 3 Fall '11 Summary

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