1. The following are four differences between monopoly and perfect competition. Which of these is incorrect?
   A) A monopolist has market power while a perfect competitor does not.
   B) Unlike a perfectly competitive firm, a monopoly can make positive economic profits in the long run.
   C) A monopoly will charge a higher price and produce a smaller quantity than a competitive market with the same demand and cost structure.
   D) Monopoly profits can continue to exist in the long run, because the monopoly produces more and charges a higher price than a comparable perfectly competitive industry.

2. Compared to perfect competition:
   A) monopoly produces more at a lower price.
   B) monopoly produces where $MR > MC$, and a perfectly competitively firm produces where $P = MC$.
   C) monopoly may have economic profits in the long run, but in perfect competition in the long run economic profits are zero.
   D) perfect competition may have economic profits in the long run, but in monopoly the long run economic profits are zero.

Use the following to answer question 3:

<table>
<thead>
<tr>
<th>Table: Demand and Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Quantity (megawatts)</strong></td>
</tr>
<tr>
<td>1</td>
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<td>8</td>
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</tbody>
</table>
3. (Table: Demand and Total Cost) Lenoia runs a natural monopoly firm producing electricity for a small mountain village. The table shows Lenoia's demand and total cost of producing electricity. To maximize profits, Lenoia should charge a price of:
A) $350.
B) $400.
C) $450.
D) $500.

Use the following to answer question 4:

**Figure: Profit-Maximizing Output and Price**

4. (Figure: Profit-Maximizing Output and Price) Assume there are no fixed costs and AC = MC. In the figure, at the profit-maximizing quantity of production for the monopolist, total revenue is ________, total cost is ________, and profit is ________.
A) $600; $200; $400
B) $1,600; $3,200; $1,600
C) $4,800; $3,200; $1,600
D) $4,800; $1,600; $3,200

5. If a monopolist is producing a quantity that generates $MC > MR$, then profit:
A) is maximized.
B) is maximized only if $MC = P$.
C) can be increased by increasing production.
D) can be increased by decreasing production.
6. Which of the following is true?
   A) A monopoly firm is a price-maker.
   B) $MR = P$ if the demand curve is downward-sloping.
   C) $MR = MC$ is a profit-maximizing rule for firms in perfect competition only.
   D) Monopolies tend to charge lower prices than perfectly competitive firms.

7. The profit-maximizing rule $MR = MC$ is:
   A) followed by a monopoly, but not by a perfectly competitive firm.
   B) followed by a perfectly competitive firm but not by a monopoly.
   C) followed by all types of firms.
   D) not followed by a monopoly, because it would reduce economic profit to zero.

8. The practice of charging different prices to different customers for the same good or service even though the cost of supplying those customers is the same is:
   A) privatization.
   B) monopolization.
   C) output competition.
   D) price discrimination.

9. The Herfindahl-Hirschman Index is a measure of concentration found by:
   A) squaring the percentage share of each firm in the industry.
   B) squaring the percentage share of each firm in the industry and then summing the squared market shares.
   C) summing the percentage shares of each firm in the industry.
   D) squaring the sums of the concentrations ratios found in an industry survey of the largest four and largest eight firms.

10. Collusive agreements are typically difficult for cartels to maintain because each firm can increase profits by:
    A) producing more output than the quantity that maximizes joint cartel profits.
    B) producing less output than the quantity that maximizes joint cartel profits.
    C) increasing the price above the price that maximizes joint cartel profits.
    D) engaging in less advertising than the level of advertising that maximizes joint cartel profits.
Use the following to answer questions 11-12:

**Figure: Payoff Matrix for Gehrig and Gabriel**

11. (Figure: Payoff Matrix for Gehrig and Gabriel) The figure shows the payoff matrix for two producers, Gehrig and Gabriel, who sell handmade Davy Crockett figurines in San Antonio. Both Gehrig and Gabriel have two strategies available to them: to produce 5,000 figurines each month or to produce 7,000 figurines each month. If each wishes to maximize profits, the combined profits of the two are maximized if:
   A) they each produce 5,000 figurines.
   B) they each produce 7,000 figurines.
   C) Gehrig produces 7,000 figurines and Gabriel produces 5,000 figurines.
   D) Gehrig produces 5,000 figurines and Gabriel produces 7,000 figurines.

12. (Figure: Payoff Matrix for Gehrig and Gabriel) The figure shows the payoff matrix for two producers, Gehrig and Gabriel, who sell handmade Davy Crockett figurines in San Antonio. Both Gehrig and Gabriel have two strategies available to them: to produce 5,000 figurines each month or to produce 7,000 figurines each month. For Gehrig and Gabriel, the dominant strategy is to:
   A) produce 5,000 figurines.
   B) produce 7,000 figurines.
   C) produce between 5,000 and 7,000 figurines.
   D) collude and increase production to more than 14,000 figurines.

13. A dominant strategy equilibrium exists in a game when:
   A) every player has no choice.
   B) every player makes the same choice, regardless of the action of the other players.
   C) each player makes the best choice, given the choice of the other player.
   D) no player is able to dictate the actions of any other player.
14. Unwritten or unspoken understandings through which firms collude to restrict competition are called:
   A) cartelization.
   B) oligopolization.
   C) overt collusion.
   D) tacit collusion.

15. As a New York businessperson who does a lot of flying, you are keenly aware of even small changes in airfare from New York to Chicago. You have flown this route long enough to know that each airline is essentially a perfect substitute for the others. You notice that every time the largest airline changes the price, smaller airlines follow, but the smaller airlines are always priced slightly below the fare of the largest airline. This industry could best be described as one with:
   A) price wars.
   B) non-price competition.
   C) cartel behavior.
   D) price leadership.

16. If an industry initially has an HHI of 1,250, a merger between two of the largest firms in the industry:
   A) would be allowed to occur since it would increase the competitive nature of the industry.
   B) would not likely be allowed since it most likely would reduce the competitive nature of the industry.
   C) would be allowed since this HHI represents a strongly competitive industry.
   D) is likely to be allowed since it moves the industry toward a socially optimal level of output.

17. In monopolistic competition:
   A) there is free entry and exit in the long run.
   B) each firm produces a standardized product.
   C) there are few producers.
   D) there are barriers to entry.

18. A feature of monopolistic competition that makes it different from monopoly is the:
   A) fact that firms in the model of monopolistic competition follow the marginal decision rule while monopolies do not.
   B) downward-sloping demand curve.
   C) downward-sloping marginal revenue curve.
   D) number of firms in the industry.
19. Since a monopolistically competitive firm faces a downward-sloping demand curve for its product, its price will be:
A) equal to marginal revenue.
B) less than marginal revenue.
C) greater than marginal revenue.
D) equal to total revenue.

20. If monopolistically competitive firms are earning positive economic profits in the short run, then in the long run:
A) firms will leave the industry.
B) the demand curves faced by existing firms will move to the right.
C) economic profits will increase.
D) economic profits will be reduced to zero.

Use the following to answer question 21:

**Figure: Firms in Monopolistic Competition**

21. (Figure: Firms in Monopolistic Competition) In panel A, the profit-maximizing quantity of output is generated by the intersection at point:
A) K.
B) P.
C) N.
D) O.

22. A monopolistically competitive firm is operating in the long run at the optimal level of output. Which of the following must be true?
A) \( P = ATC = MR = MC \)
B) \( P > ATC > MR = MC \)
C) \( P = ATC > MR > MC \)
D) \( P = ATC > MR = MC \)
23. The failure to produce enough to minimize average total cost is termed:
   A) economic profits.
   B) excess capacity.
   C) advertising.
   D) excess production.

24. Monopolistic competitors:
   A) have some ability to set price.
   B) must accept the price as given and therefore are price-takers.
   C) produce goods that are standardized and hard to differentiate.
   D) eventually produce at their minimum $ATC$ at the profit-maximizing level.

25. The proposition that if bargaining is costless, then the market can achieve an efficient outcome, is referred to as the:
   A) Coase theorem.
   B) property rights paradigm.
   C) market rights theorem.
   D) efficient environment paradigm.

26. Which of the following is an example of a nonexcludable good?
   A) health care
   B) national defense
   C) education
   D) ice cream

27. A private good is:
   A) excludable and rival in consumption.
   B) nonexcludable and nonrival in consumption.
   C) excludable and nonrival in consumption.
   D) nonexcludable and rival in consumption.

28. A market economy, without any government regulation, will produce:
   A) too little pollution.
   B) too much pollution.
   C) the socially optimal quantity of pollution.
   D) the amount of pollution that maximizes total surplus.
29. Which of the following is an example of an activity generating a negative externality?
   A) You buy a new car, then discover it needs a new transmission.
   B) Your next-door neighbor mows the lawn at 6 AM.
   C) The only two coffee shops in town conspire to raise prices.
   D) After Jane bought health insurance, she began racing motorcycles on the weekends.

30. If an activity generates external costs, decision makers generating the activity will:
   A) be faced with its full costs.
   B) be faced with no costs.
   C) not be faced with its full costs.
   D) be faced with excessive costs.
Problem: Be sure to show all of your work.

31. John owns a candy store and can sell his candy for 50 cents a pound. His workers can produce candy on an hourly basis as follows:

<table>
<thead>
<tr>
<th>Number of Workers</th>
<th>Quantity produced per hour (pounds)</th>
<th>Marginal Product</th>
<th>Marginal Revenue Product</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
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<td></td>
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<tr>
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<td>8</td>
<td>190</td>
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</tr>
</tbody>
</table>

a. Complete the above table, computing the marginal product of each additional student and their marginal revenue product.
b. How many workers should John hire if the going wage rate is $7.50 per hour?

c. What would happen to the number of workers John hires if the price of candy dropped to 33.3 cents per pound?