ECO201: PRINCIPLES OF MICROECONOMICS

SECOND MIDTERM EXAMINATION

Form 1

November 8, 2005

Directions

1. There are 49 multiple choice questions. All answers should be recorded on both your exam and the scantron. Be sure to fill in your unique id on the scantron along with the form number for your exam and the form number. You will receive credit for the equivalent of one question for properly filling in your unique id and form number.

2. A calculator is allowed.

3. You have the entire class period to finish the exam. However, no additional time will be allowed.
1) The costs of a firm that are paid directly in money are called its
   A) implicit costs.       B) money opportunity costs.
   C) alternative costs.   D) explicit costs.

2) The difference between the market price of a new car used by a firm and the market price of the same car one year later is known as
   A) implicit depreciation. B) physical depreciation.
   C) accounting depreciation. D) economic depreciation.

3) Sheila’s Sports Shop is a very popular sporting goods store, which has a yearly revenue of $600,000. Sheila runs the business herself. Her alternative employment options are to be a college swimming coach for $50,000 per year or a construction worker for $40,000 per year. Sheila spends $230,000 purchasing goods for resale to her customers. She also has four employees, who each earn $25,000 per year. Sheila owns the building that her Sports Shop is housed in—she remodeled a house that she owns and that she could have rented out for $20,000 per year instead. Sheila’s implicit costs equal
   A) $70,000 per year.       B) $330,000 per year.
   C) $90,000 per year.       D) $110,000 per year.

4) Mr. Adams owns a textile business. In order to deal with the principal-agent problem, Mr. Adams might offer his employees
   A) long-term contracts.   B) incentive pay.
   C) part-ownership.       D) all of the above.

5) Owners of a proprietorship have
   A) unlimited liability. Stockholders in a corporation have limited liability.
   B) limited liability. Stockholders in a corporation have unlimited liability.
   C) limited liability. So do stockholders in a corporation.
   D) unlimited liability. So do stockholders in a corporation.

6) The type of firm that is most numerous is the
   A) partnership.       B) corporation.
   C) proprietorship.   D) multinational.

7) The vast majority of all business sales are accounted for by
   A) corporations.        B) nonprofit organizations.
   C) proprietorships.    D) partnerships.

8) A market system in which a large number of firms compete by selling slightly differentiated products is called
   A) perfect competition.   B) monopoly.
   C) monopolistic competition. D) oligopoly.
9) The above table shows the market shares for all the landscaping services in a suburban area. The Herfindahl-Hirschman Index (HHI) equals

10) A form of business whose profits are taxed twice is
    A) a proprietorship.
    B) either a proprietorship or a partnership, depending on other information.
    C) a partnership.
    D) a corporation.

<table>
<thead>
<tr>
<th>Technique</th>
<th>Number of workers</th>
<th>Units of capital</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>1</td>
<td>3</td>
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<td>B</td>
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<tr>
<td>D</td>
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</table>

11) The table above shows four methods for producing 10 computer desks a day. Of the four methods, _______ technologically inefficient.
    A) B and C are  B) A and B are  C) D is  D) B is

12) The table above shows four methods for producing 10 computer desks a day. If the cost of a worker is $100 a day and the cost of capital is $100 a day, the method that is economically efficient is _______.
    A) B, C, or D  B) B  C) C  D) A
<table>
<thead>
<tr>
<th>Labor (workers)</th>
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13) In the above table, what is marginal product of labor for the 5th worker?
A) 9  B) 11.2  C) 10  D) 14

14) In the above table, what is average product when 4 workers are employed?
A) 10  B) 11.5  C) 12  D) 9.5

15) Which of the following statements is true for any marginal and average?
A) When the marginal is equal to the average, the average falls.
B) When the marginal is rising, the average is rising.
C) When the marginal is greater than the average, the average rises.
D) When the marginal is less than the average, the average rises.

### Cost schedule

<table>
<thead>
<tr>
<th>Labor (workers)</th>
<th>Output (units per day)</th>
<th>Total fixed cost (dollars)</th>
<th>Total variable cost (dollars)</th>
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16) Using the data in the above table, when output increases from 4 to 9 units, the marginal cost of one of those 5 units is
A) $6.25.  B) $5.00.  C) $4.00.  D) $4.25.

17) Average variable cost is at a minimum at the same amount of output at which
A) marginal product is at a maximum.  B) average product is at a minimum.
C) average product is at a maximum.  D) marginal product is at a minimum.
**Cost schedule**

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18) Using the data in the above table, the average fixed cost of producing 9 units per day is
   A) $5.00.          B) $5.55.          C) $2.22.          D) $20.00.

19) Using the data in the above table, the average total cost of producing 16 units per day is
   A) $7.00            B) $1.25.          C) $7.50.          D) $6.25.

![Graph of average costs](image)

20) The average total cost curves for plants A, B, C and D are shown in the above figure. Which plant is best to use to produce 60 units per day?
   A) plant A          B) plant B          C) plant C          D) plant D

21) When a firm experiences economies of scale, its ______ cost curve slopes ______.
   A) short-run marginal cost; downward  B) long-run average; upward
   C) short-run average total; downward  D) long-run average; downward
22) Consider the perfectly competitive firm in the above figure. The profit maximizing level of output for the firm is equal to
A) 14 units.  B) 17 units.  C) 19 units.  D) 0 units.

23) Consider the perfectly competitive firm in the above figure. At the profit maximizing level of output, the firm is earning
A) an economic loss equal to $114.  B) an economic loss equal to $102.
C) an economic loss equal to $119.  D) a normal profit.

24) Consider the perfectly competitive firm in the above figure. If there are no external economies or external diseconomies, in the long run we should expect that firms will (enter, exit) the industry until price settles at
A) enter; $11  B) exit; $16  C) exit; $22  D) none of the above.

25) Consider the perfectly competitive firm in the above figure. If there are external economies, in the long run we should expect that the price will settle at:
A) $22  B) $11  C) between $11 and $16  D) above $22.

26) To which of the following situations does the term “external diseconomies” apply?
A) The firm's MC curve falls as more output is produced.
B) Increases in an industry's output raise the costs of the firms in an industry.
C) Increases in an industry's output reduce the costs of the firms in an industry.
D) The firm's ATC curve slopes upward as the firm produces more output.

27) Suppose that the coal industry is in a perfectly competitive long run equilibrium and the price of coal is $100 per ton. If the government imposes a tax of $10 per ton of coal on coal buyers, in the short run, we should expect that the total price (including tax) paid by coal buyers will ____ and the economic profits of coal producers will ____.
A) rise by less than $10; fall  B) rise by more than $10; rise.
C) rise by $10; not change.  D) rise by $10; fall.
28) Suppose that the coal industry is in a perfectly competitive long run equilibrium and the price of coal is $100 per ton. If the government imposes a tax of $10 per ton of coal on coal buyers, in the long run, we should expect that the total price (including tax) paid by coal buyers will _____
   A) rise by less than $10 if there are external economies.
   B) rise by more than $10 if there are external diseconomies.
   C) rise by $10 if there are no external economies or diseconomies.
   D) all of the above.

29) Suppose that all existing orange producers hold licenses which allow them to continue growing oranges in the future. No one is allowed to grow oranges without such a license. In the long run, we should expect
   A) the value of the orange growing license to rise and fall as the demand for oranges rises or falls.
   B) the value of the orange growing license to rise to a level that economic profits for orange growers are driven to zero.
   C) the existence of the orange growing license to keep orange prices higher than they otherwise would be.
   D) all of the above.

<table>
<thead>
<tr>
<th>Price (dollars)</th>
<th>Quantity demanded</th>
<th>Marginal revenue (dollars)</th>
<th>Total cost (dollars)</th>
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30) Using the data in the above table for a single-price monopolist, how many units of output will be produced?
   A) 3 units
   B) 6 units
   C) 5 units
   D) 4 units

31) An unregulated, single-price monopoly is shown in the figure above. If fixed cost is $20, the monopoly's total costs when it is maximizing its profit will be
   A) $140.
   B) $40.
   C) $80
   D) $30.
32) Which of the following statements is true?
   A) A perfectly competitive industry produces less output but charges a lower price than a single-price monopoly.
   B) A perfectly competitive industry produces more output and charges a lower price than a single-price monopoly.
   C) A perfectly competitive industry produces less output and charges the same price as a single-price monopoly.
   D) A perfectly competitive industry produces more output and charges the same price as a single-price monopoly.

33) The unregulated, single-price monopolist illustrated in the figure above earns an economic profit of
   A) $8.00 per day.  B) $10.00 per day.  C) zero.  D) $40.00 per day.

34) In the figure above, the deadweight loss created if the industry changes from perfectly competitive to a single-price, unregulated monopoly is
   A) zero.  B) $36.00 per day.  C) $24.00 per day.  D) $8.00 per day.
35) Which area(s) in the above figure indicates consumer surplus at the price and quantity that would be attained if the industry were perfectly competitive?

A) $A + B + C + D$
B) $A + B + C + D + E + F + G + H$
C) $F + G + H$
D) $A + B + C + D + E$

36) Efforts by a firm to obtain a monopoly

A) are called rent seeking.
B) raise consumer surplus.
C) are called price discrimination.
D) are called price taking.

37) Price discrimination by a monopoly

A) increases consumer surplus.
B) increases the firm’s profit.
C) decreases consumer surplus.
D) Both answers B and C are correct.

38) If the monopoly illustrated in the figure above could engage in perfect price discrimination, then each buyer would pay

A) $3.50.
B) $3.00.
C) $2.00.
D) a different price.
39) In the figure above, the elasticity of demand facing the monopoly equals one when it produces ______ output.
   A) j  B) h  C) k  D) none of the above

40) Which area(s) in the above figure indicates producer surplus at the price and quantity that would be attained if the industry were perfectly competitive?
   A) C + D + E + F + G + H  B) F + G + H + I + J + K
   C) A + B + C + D + E  D) F + G + H

41) Which area(s) in the above figure indicates consumer surplus at the price and quantity that would be set by a single-price monopoly?
   A) C + D  B) A + B + C + D + E
   C) C + D + E + F + G + H  D) A + B
42) An unregulated, single-price monopoly is shown in the figure above. If fixed cost is $20, the monopoly's total economic profit when it is maximizing its profit will be
A) $25.  
B) $0.  
C) negative.  
D) $50.

43) The monopoly illustrated in the figure above is unregulated and charges a single price. The deadweight loss created by the monopoly is
A) $90.00.  
B) $45.00.  
C) $0.  
D) $22.50.

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44) If the single-price monopolist whose cost and demand data are in the above table were forced to produce 5 units of output, what would be the monopolist's economic profit?
A) $11  
B) $3  
C) $15  
D) $75

45) Suppose that you have a monopoly on the sale of roses in Oxford. You currently maximize profits using a single price by charging all customers a price of $20 per dozen. If you learn that the elasticity of demand for roses among men is higher than it is for women, you would have an incentive to
A) raise prices for men and lower prices for women.  
B) raise prices for women and lower prices for men.  
C) raise prices for men, but not change prices for women.  
D) raise prices for women, but not change prices for men.
46) Two-part pricing
A) occurs when a cell phone company charges $20 per month plus $.05 per minute
B) allows producers to convert consumers surplus into revenue
C) is sometimes used by regulators to offset the losses associated with MC pricing
D) all of the above

47) Natural gas is a natural monopoly. The figure above shows the market for natural gas in the city of Lucknow. When an average cost price rule regulation is imposed, the price per household per month is_________.
A) $40 and 40,000 households are served  B) $20 and 30,000 households are served
C) $40 and 30,000 households are served  D) $60 and 20,000 households are served

48) Natural gas is a natural monopoly. The figure above shows the market for natural gas in the city of Lucknow. If marginal cost pricing is imposed on the monopoly
A) the firm would have economic losses and there would be no deadweight loss
B) the firm would have economic profits and there would be no deadweight loss
C) the firm would have zero economic profits and there would be a deadweight loss
D) the firm would have economic losses and there would be no deadweight loss

49) A monopolist will never charge a price where:
A) demand is elastic since a higher price would result in more revenue and lower costs
B) demand is elastic since a lower price would result in more revenue and lower costs
C) demand is inelastic since a higher price would result in more revenue and lower costs
D) demand is inelastic since a lower price would result in more revenue and lower costs
1) D
2) D
3) A
4) D
5) A
6) C
7) A
8) C
9) B
10) D
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