ECON 180 - Regulation & Antitrust Policy
Drake University, Spring 2013
William M. Boal

Signature: ________________________________

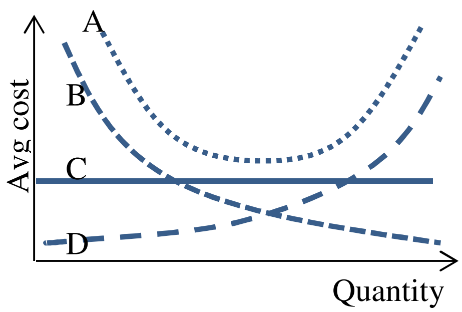
Printed name: ________________________________

QUIZ 4 VERSION B
"Introduction to Antitrust"

INSTRUCTIONS: This exam is closed-book, closed-notes. Simple calculators are permitted, but graphing calculators or calculators with alphabetical keyboards are NOT permitted. Mobile phones or other wireless devices are NOT permitted. Points will be subtracted for illegible writing or incorrect rounding. Point values for each question are noted in brackets.

I. Multiple choice: Circle the one best answer to each question. [2 pts each: 14 pts total]

(1) Which average cost curve below implies that the firm enjoys a natural monopoly?



a. Curve A.
b. Curve B.
c. Curve C.
d. Curve D.
e. None of the above.

(2) If at the current level of output, marginal revenue is less than marginal cost,
a. the firm can increase profit by increasing output.
b. the firm can increase profit by decreasing output.
c. the firm can increase profit by shutting down.
d. the firm cannot change its profit through small changes in output.

(3) Economists are opposed to monopolies because they
a. make people buy things that people don't really want.
b. advertise too much.
c. create unhealthy concentration of social power.
d. set prices that exclude some buyers who are willing to pay the marginal cost.
e. make the rich richer, and the poor poorer.
f. All of the above.

(4) The "Structure-Conduct-Performance" paradigm is simplistic because it assumes that
a. structure does not depend on conduct.
b. conduct does not depend on structure.
c. performance does not depend on structure.
d. performance does not depend on conduct.

(5) In the United States, "monopolization" is illegal under the
a. Sherman Act Section 1.
b. Sherman Act Section 2.
c. Clayton Act.
d. Federal Trade Commission Act.

(6) What organizations are *not* exempt from U.S. antitrust law?
a. agricultural cooperatives.
b. software companies.
c. labor unions.
d. export associations.

(7) An action by firms that is judged under the "rule of reason" is
a. always illegal regardless of circumstances.
b. may be illegal if it appears to lessen competition.
c. may be illegal if it increases the firm's profit.
d. may be illegal if it decreases other firms' profits.

II. Problems: Insert your answer to each question below in the box provided. Use the margins and graphs for scratch work—only the answers in the boxes will be graded. Work carefully—partial credit is not normally given for questions in this section.

(1) [Marginal revenue: 12 pts] Suppose a sandwich vendor with market power is now selling 8 sandwiches per hour at a price of $4.00. If she cuts the price to $3.75, she can sell one more sandwich per hour (that is, a total of 9 sandwiches per hour).

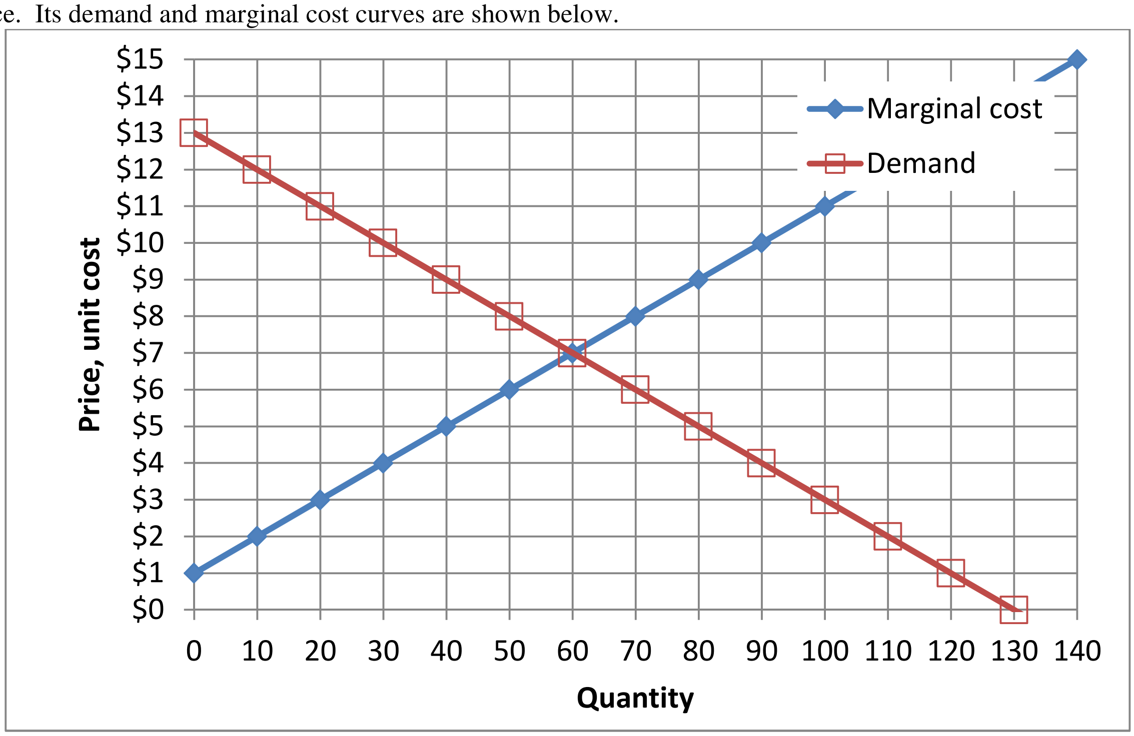
a. Compute the vendor's marginal revenue for the 9th sandwich. $

Suppose the marginal cost of making a sandwich is $2.00 per sandwich, and suppose the vendor does indeed lower her price to $3.75 to sell 9 sandwiches per hour.

b. Will the vendor's hourly profit *increase* or *decrease*?

c. By how much? $

(2) [Marginal revenue, monopoly pricing, welfare analysis: 24 pts] Acme High-Tech Company sells a patented device. Its demand and marginal cost curves are shown below.



a. According to the graph above, how much are buyers willing to pay for the 30th device? (Give an answer to the nearest dollar.) $

b. According to the graph above, how much will Acme's total cost increase if it increases the quantity of devices that it makes from 50 to 51? (Give an answer to the nearest dollar.) $

c. Plot and label Acme's marginal revenue curve in the graph above.

d. Compute the quantity of devices that Acme must produce and sell to maximize profit. devices

e. Compute the price that Acme will set for its device to maximize profit. $

f. Compute the social deadweight loss from this monopoly price. $

(3) [Monopoly, profit maximization: 28 pts] Suppose a monopolist has total cost function given by $TC(Q) = Q + (Q^2/200)$. This monopolist faces a demand curve given by $P = 19 – (Q/100)$.

a. Find the monopolist's marginal cost function.

b. Find the monopolist's average cost function.

c. Find the monopolist's marginal revenue function.

d. Compute the monopolist's profit-maximizing level of output Q*.

e. Compute the monopolist's profit-maximizing price P*.

f. Compute the monopolist's profit.

[Problem continues on next page.]

g. Compute the social deadweight loss caused by the monopolist. (You may use the graph for scratch work.)

(4) [Monopoly, markup formula, Lerner index: 8 pts] Falldown Roller Rink enjoys a local monopoly. Its marginal cost per customer is $6. The management believes the elasticity of demand for admissions is -4.

a. What admission price should Falldown set, to maximize profit?

$

b. Compute this monopolist's Lerner index (also called the "price-cost margin" or the "markup ratio"). Recall that the Lerner index is defined as $L = (P-MC) / P$.

L =

(5) [Structure-Conduct-Performance paradigm: 10 pts] Classify each of the following as industry "structure," "conduct," or "performance."

a. Spending on research and development.	
b. Price elasticity of market demand.	
c. Consumer and producer surplus.	
d. Industry concentration.	
e. Legal barriers to entry.	

III. Critical thinking [4 pts]

Would a monopolist ever set price and quantity on the *inelastic* ($|\varepsilon| < 1$) part of its demand curve? Why or why not?

[end of quiz]