ECON 180 - Regulation & Antitrust Policy
Drake University, Spring 2015
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Signature: ____________________

Printed name: ____________________

QUIZ 2 VERSION A
"Competitive Firms"

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.

Multiple choice: Circle the one best answer to each question. [10 pts each]

The next two questions refer to the following information. Suppose a firm's long-run total cost function is given by $TC(q) = 0.005q^3 – 0.5\ q^2 + 20\ q$.

(1) The firm's *marginal cost* function is $MC(q) =$
a. $0.01\ q – 0.5$.
b. $0.03\ q – 1$.
c. $0.005\ q^2 – 0.5\ q + 20$.
d. $0.015\ q^2 – q + 20$.
e. $0.005q^3 – 0.5\ q^2 + 20\ q$.

(2) The firm's *average cost* function is $AC(q) =$
a. $0.01\ q – 0.5$.
b. $0.03\ q – 1$.
c. $0.005\ q^2 – 0.5\ q + 20$.
d. $0.015\ q^2 – q + 20$.
e. $0.005q^3 – 0.5\ q^2 + 20\ q$.

(3) Suppose that at a firm's current level of output, its marginal cost is *greater* than its average cost. Then its average cost curve must
a. slope up.
b. slope down.
c. be horizontal.
d. be vertical.
e. cannot be determined from information given.

(4) "Economies of scale" mean that the firm's average cost curve
a. slopes up.
b. slopes down.
c. is horizontal.
d. is vertical.

(5) A firm's so-called "efficient scale" is the level of output where
a. average cost is minimized.
b. output is maximized.
c. marginal cost is minimized.
d. total cost is minimized.

(6) Suppose a competitive firm is now producing 500 units of output per day. Its marginal cost is $10, its average cost is $5, and it can sell its output at a price of $8. This firm can increase its profit by

a. increasing its output by one unit.
b. decreasing its output by one unit.
c. It cannot increase its profit by small changes in output.
d. cannot be determined from information given.

(7) In the short run, a firm should continue to operate only if its revenue is greater than its

a. fixed cost.
b. variable cost.
c. total cost.
d. producer surplus.

(8) If price is *less* than minimum average cost in a competitive industry,

a. firms will try to lower the price.
b. firms will try to raise the price.
c. new firms will enter the industry.
d. existing firms will leave the industry.

(9) Suppose that in a certain industry, cost curves for each firm remain fixed as other firms enter or leave the industry. In this case, the long-run supply curve

a. is vertical (infinite slope).
b. is horizontal (zero slope).
c. slopes up (positive slope).
d. slopes down (negative slope).
e. cannot be determined from information given.

(10) Price equals average cost in

a. short-run competitive equilibrium.
b. long-run competitive equilibrium.
c. both short-run and long-run competitive equilibrium.
d. none of the above.

[end of quiz]