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| Regulation & Antitrust Policy (Econ 180) | Signature: |  |
| Drake University, Spring 2011  William M. Boal | Printed name: |  |

**QUIZ #12 VERSION B**

**"Franchise Bidding and Government Enterprise"**

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. [3 pts each: 18 pts total]

(1) Originally, cable TV systems offered only

1. distant signals, not available in local broadcasts.
2. government and community programming.
3. pay-per-view service.
4. local broadcast channels.

(2) Cable TV enjoys little or no economies of scale with respect to

1. system size (area covered or cable-miles).
2. penetration or density (number of customers in a fixed area).
3. both of the above.
4. none of the above.

(3) During periods of rate *regulation*, cable TV systems typically

1. increased the number of channels included in the basic package.
2. froze the number of channels included in the basic package.
3. decreased the number of channels included in the basic package.
4. Cable TV rates were never regulated.

(4) In rare cases where an area is served by two overlapping cable systems, cable prices are typically

1. higher than in areas with one system.
2. the same as in areas with one system.
3. lower than in areas with one system.
4. No study has been done on this issue.

(5) If a government enterprise has the profit function shown below, what price will the manager likely choose?

1. $30.
2. between $30 and $20.
3. $20.
4. between $10 and $20.
5. $10.
6. $0.

$10 $20 $30 Price

Profit

(6) Compared to managers of private enterprises, managers of government enterprises are likely to choose

1. more price discrimination.
2. a higher quality of service.
3. a higher output price.
4. a higher profit.

**II. Problems:** Insert your answer to each question below in the box provided. Use 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) [Franchise bidding versus ROR regulation: 20 pts] Compare traditional rate-of-return regulation of public utilities with franchise bidding. Write "TRUE" or "FALSE" in each box below.

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|  | Franchise bidding | Traditional rate-of-return regulation |
| a. Government must collect information about suppliers' costs. |  |  |
| b. Government must collect information about suppliers' quality of service. |  |  |
| c. Government must determine appropriate rate of return on suppliers' capital investment. |  |  |
| d. Government must devise a procedure for a new supplier to take possession of the old supplier's assets. |  |  |
| e. Suppliers can use nonlinear prices, such as monthly fees or declining block tariffs. |  |  |

(2) [Second-price sealed-bid auctions: 18 pts] Your city has requested bids on a contract to repair the city's potholes. The city requires that all bids be submitted in sealed envelopes, which will be opened next Saturday. The company with the lowest price will win the contract, but the winning company will be paid the bid of the runner-up (the "second price"). For example, if Companies X, Y, and Z submit bids of $3,000, $2,000, and $1,000, respectively, then Company Z will win the contract and will be paid $2,000.

You own a street-repair company. You are certain that your economic cost for the project would be $20,000. Your accountant suggests that you simply submit a bid for the same amount: $20,000, but you are not sure that would be a good strategy.

First, suppose the lowest bid by any other company is *less than $20,000*. Consider what will happen if you raise or lower your own bid from your accountant’s suggestion.

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|  | ...if you raise your bid above $20,000? | ...if you lower your bid below $20,000? |
| a. Will your company's chances of winning the contract *increase*, *decrease*, or remain *constant* ... |  |  |
| b. Assuming your company wins the contract, will your company experience a *profit* or a *loss* from the contract ... | N/A |  |

Second, suppose the lowest bid by any other company is *more than $20,000*. Consider what will happen if you raise or lower your own bid from your accountant’s suggestion.

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|  | ...if you raise your bid above $20,000? | ...if you lower your bid below $20,000? |
| c. Will your company's chances of winning the contract *increase*, *decrease*, or remain *constant* ... |  |  |
| d. Assuming your company wins the contract, will your company's profit from the contract *increase*, *decrease*, or remain *constant* ... |  |  |

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| e. Will you take your accountant's suggestion? Answer *yes* or *no*. |  |
| f. Why or why not? |  |
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(3) [Franchise bidding: 16 pts] A city has received the following two bids for a particular service (such as cable TV, telephone service, internet access, water, etc.) as follows. Note that OK Services’s bid includes a declining-block tariff for usage.

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| Bidder | Tariff |
| OK Services | $6 per unit for first 30 units,  $3 per unit thereafter. |
| Alright Services | $4 per unit for all units. |

Suppose demand for the service by a typical resident is as follows.

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|  | OK Services | Alright Services |
| a. How much usage would a typical resident choose under each proposed tariff? | units | units |
| b. How much money would a typical resident spend under each proposed tariff? | $ | $ |
| c. How much consumer surplus would a typical resident enjoy under each proposed tariff? [Hint: consumer surplus is consumer's total benefit minus total amount of money spent.] | $ | $ |

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| d. Which company should receive the franchise? |  |

e. Why?

(4) [Effect of franchise fees: 18 pts] The following graph shows monthly demand for a particular service (such as cable TV, telephone service, internet access, water, etc.) and average cost of all firms who bid on the franchise.

Assume that franchise bidding results in simple average-cost pricing so the supplier earns no economic profit. First, assume there is no franchise fee.

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| a. What monthly price will be charged? | $ |
| b. What quantity will be produced? | thousand |
| c. How much revenue will the supplier receive? | $ thousand |

Second, assume that the government imposes a proportional franchise fee equal to **50 %** of gross revenues. Again, assume that franchise bidding results in average-cost pricing so the supplier earns no economic profit.

d. Using a straightedge, draw and label the supplier's demand curve after subtracting the franchise fee.

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| e. What *total* monthly price will be charged to consumers, including the franchise fee (PD)? | $ |
| f. What *net* monthly price will be received by the supplier, after subtracting the franchise fee (PS)? | $ |
| g. What quantity will be produced? | thousand |
| h. How much *net* revenue will the supplier receive, after subtracting the franchise fee? | $ thousand |
| i. Compute the welfare loss caused by the franchise fee. [Hint: there are two parts to this welfare loss.] | $ thousand |

**III. Challenge question:** Write a one-paragraph essay answering the following question. [10 pts]

The graph below shows the demand for cable TV service in a particular Iowa community. Assume that, with only one cable TV company, its average cost and marginal cost per subscriber per month is $20, but the market outcome is monopoly. With two cable TV companies ("overbuild") the average cost and marginal cost is $25 and the market outcome is price competition. Which is better for society—one company or two companies? Why?

[end of quiz]