

***Economics 220B***  
**FINAL EXAM**

INSTRUCTIONS: The exam has FOUR parts. Please answer each one. To guide your time allocation, a total of 100 points is distributed as follows:

- Part I: 24 points (= 6 x 4 points)
- Part II: 30 points
- Part III: 28 points
- Part IV: 18 points

I. Answer TRUE or FALSE and EXPLAIN with 2 or 3 sentences.

1. If an industry configuration is sustainable, then production is cost efficient.
2. A Ramsey price vector is necessarily subsidy free.
3. In Peltzman's private interest model applied to monopoly regulation, price obeys an inverse elasticity rule typical of efficiency but income distribution may be skewed.
4. In Joskow's behavioral model of rate-of-return regulation, rate reviews do not occur when unit costs are rising.
5. Producer and consumer surplus increase with the HH Index in a Cournot oligopoly.
6. The so-called "double markup" that results from monopoly power at both the manufacturing and the retail levels can be eliminated with a two-part tariff.

II. Two schemes that are designed to regulate natural monopoly are:

- (i) Rate-of-return regulation
- (ii) Vogelsang-Finsinger iterative mechanism

Evaluate each of the schemes relative to the unregulated outcome in terms of their effects on:

- (a) short-run allocative efficiency,
- (b) the rents that accrue to producers,
- (c) the welfare of consumers.

- III. Auctioning off monopoly franchises has often been proposed as a way to inject some competition into natural monopoly markets.
1. In terms of economic efficiency, compare the following two rules for awarding the franchise: give it to the bidder with the most attractive price-service-quality package, or give it to the bidder that offers the largest cash payment for the franchise.
  2. What are the informational requirements needed to implement the schemes proposed by Demsetz and by Loeb and Magat?
  3. What difficulties arise over the course of the franchise contract that hamper the performance of this scheme?
  4. Under what conditions will the outcome be improved as the length of the firm-regulator relationship becomes *infinite*?
- IV. Consider the Baron-Myerson approach to regulating a firm with private cost information. For concreteness, let the cost function of the firm be  $C(y, \theta)$  which is increasing in output of the good  $y$  and a cost parameter  $\theta$ .
1. What is meant by an "information rent"? How is it paid to the firm in the Baron-Myerson scheme?
  2. In what sense does a cross subsidization occur across different cost realizations?
  3. What additional features do Laffont and Tirole build into their model of regulation that generalizes Baron-Myerson? How does their pricing optimum differ?