

**Test #2**

Points for each problem are shown out of 100 points. Each subsection in a problem is weighted equally.

Please show the calculations used to arrive at your answers. Draw graphs neatly and label axes and points clearly. Round answers to the second decimal place if necessary.

A. (20 pts) Answer True, False, or Uncertain, and briefly explain your answer.

- (1) The industry demand curve is generally flatter than the individual consumer demand curves.
- (2) If demand is elastic, then raising the price will increase total revenue and decrease total cost.
- (3) Monopolies cause lower wages and lower employment in labor markets.
- (4) Oligopolists in Bertrand equilibrium set price equal to average cost if their marginal cost curves are upward-sloping.

B. (20 pts) Short answers.

- (1) Explain how a Vickrey auction works. If you can, give a real-life example.
- (2) When is an economic situation Pareto efficient?
- (3) Give one example of second-degree price discrimination and one example of third-degree price discrimination.
- (4) Explain the fundamental difference between a game of coordination and a game of competition.

C. (20 pts) The retail market for gallons of milk in Mootown is perfectly competitive.

$$\text{Market demand is } Q_D = \max\{200 - 30P, 0\}$$

$$\text{Market supply is } Q_S = (0 \text{ if } P < \$3.33; 120P - 400 \text{ if } P \geq \$3.33)$$

- (1) What are the equilibrium price and quantity?
- (2) If milk is subsidized by \$0.50 per gallon, what are the new equilibrium quantity and price(s)?
- (3) How much does the government spend subsidizing milk?
- (4) What would you expect to happen in the long run in this market?

D. (25 pts) Destainta has a monopoly on movies in Middletowne,  
and a cost structure of  $C(Q) = 4Q + 1600$ , where  $Q$  = number of customers.

$$\text{Market demand for movies is } Q_D = 1000 - 50P.$$

- (1) Calculate the profit-maximizing output and price for Destainta.
- (2) What is Destainta's profit?
- (3) Calculate the deadweight loss caused by this monopoly.
- (4) Assume you are an economic consultant to Destainta, and suggest a strategy by which Destainta might be able to increase their profits. Indicate what additional information Destainta would need in order to be able to implement your strategy.
- (5) Assume you are an economic consultant to another company, Odeono, that is thinking of opening a movie theater in Middletowne and that has the same cost structure as Destainta. Under the assumption that a Cournot equilibrium would occur, what would you expect Odeono's profits to be if it enters the Middletowne market?

E. (15 pts) Compare the (Chamberlain) model of monopolistic competition to the models of monopoly and perfect competition. Discuss their similarities and differences and compare their outcomes.