

Test #2

Points for each problem are shown out of 100 points. Each subsection in a problem is weighted equally. Try to allocate your time accordingly.

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

- (1) If supply is completely inelastic and demand is completely elastic, the producers will pay both the full amount of a tax and the full amount of deadweight loss caused by a tax out of their producer surplus.
- (2) If there is free entry and exit and all firms in an industry are making zero profits, then the industry is perfectly competitive.
- (3) Monopsonies cause higher wages and lower employment in labor markets.
- (4) The monopolist's supply curve is the upward-sloping portion of the marginal cost curve above average variable costs.

B. (20 pts) Short answers.

- (1) Explain the difference between an English auction and a Dutch auction. Why might an economist prefer to see markets use English auctions rather than Dutch auctions?
- (2) Give two examples of pricing strategies that a monopolist might use to increase profits. Explain clearly how they work.
- (3) Give two policy alternatives for how government could deal with a natural monopoly.
- (4) Do economists prefer a price discriminating monopolist or a one-price monopolist? Explain your choice.

For the following problems, please show the calculations used to arrive at your answers. Draw graphs neatly and label axes and points clearly. Round answers to the first decimal place if necessary.

C. (20 pts) Kate has a monopoly on kites, which can be produced at a total cost of $C(Q) = 10Q + 200$. Market demand for kites is $Q_d = 200 - 10P$.

- (1) Calculate the profit-maximizing output for Kate.
- (2) What is Kate's profit?
- (3) Calculate the deadweight loss caused by this monopoly.
- (4) What price might a regulator want to set in this market? Why?

D. (25 pts) The U.S. market for gumdrops is perfectly competitive. There are 1000 potential gumdrop eaters, each with a demand curve: $Q_d = 300 - 1000P$. There are 100 gumdrop

manufacturers, each with a cost function: $C(Q) = \frac{Q^2}{80000} + \frac{Q}{20} + 50$.

- (1) What is the market demand curve?
- (2) What is the market supply curve?
- (3) What are the equilibrium price and quantity?
- (4) A value tax of 300% is placed on gumdrops. Now what are the equilibrium price(s) and quantity?
- (5) Draw a diagram of the market, labelling the equilibria before and after the tax, and indicate the areas of tax revenue, consumer deadweight loss, and producer deadweight loss.

E. (15 pts) Discuss the pros and cons of gasoline rationing as a method to reduce consumption of gasoline and suggest preferable alternatives.