

Midterm Exam

A. Short problems

You should allocate forty minutes of exam time to this section of the exam.

- (1) In each of the following cases, give an example and motivate why you chose it.
 - a) An industry where the firms are likely to be local input-oriented.
 - b) A shopping externality.
 - c) Two goods, one of which has high demand relative to scale economies of production, and one of which has low demand relative to scale economies of production, and indicate which one has smaller market areas.
 - d) An urbanization economy.

- (2) Consider a region that produces bread and butter and consumes sandwiches (made by combining bread and butter). All resources are distributed uniformly throughout the region and all people are equally productive in producing bread and butter. There are scale economies in the production of bread, causing the development of a bakery (i.e., a bread factory) and a factory city. Suppose that a small home breadmaking machine is introduced and imported into the region, providing an alternative to the bread purchased from bakeries.
 - a) Explain the effects of the breadmaking machine on the market area of the factory.
 - b) Explain the effects of the breadmaking machine on the size of the city surrounding the factory.
 - c) Will land prices rise, fall, or stay the same in the city? Explain.
 - d) Will land prices rise, fall, or stay the same in the part of the region outside of the city? Explain.

- (3) Consider a city with two supermarkets, Super Shop & Stop and Supper Food Mart. Initially the distance between the markets is five miles. Supper Food Mart submits a rezoning request to the city council to relocate to a site adjacent to Super Shop & Stop.
- What is the economic reasoning why Supper Food Mart would want to move near to Super Shop & Stop?
 - If you are Super Shop & Stop, should you argue in favor of or against this proposal? Explain your reasoning.
 - Are residents of the city better or worse off if the move is approved? Explain your reasoning.
- (4) In the state of Connecticut, apple growers use fertilizer XXX to improve their yields that costs them \$150 per acre. The alternative fertilizer, YYY, would cost them \$200 per acre. Apple farmers are currently willing to pay \$450 per acre for land, while pear farmers (who do not need to use fertilizer) are willing to pay \$375 per acre. The total fruit output of Connecticut is small enough that the national prices of apples and pears are unaffected by changes in Connecticut's output.
- Suppose that use of fertilizer XXX is outlawed in Connecticut. How does this change affect apple consumers, pear consumers, farmers, and landowners? In particular, who bears the cost of this law change?
 - How would your answer to (a) change if the cost of the alternative fertilizer were \$250?
 - How would your answer to (b) change if fertilizer XXX was outlawed nationally?

B. Essay questions

You should allocate forty minutes of exam time to this section of the exam, twenty minutes to answering each question. Your grade on these answers will depend on the coherence and completeness of the answer and on your demonstrating knowledge of the material covered in this course. Use equations, graphs, or diagrams to illustrate your points when helpful.

(1) xx

(2) xx