

Test II Topics

The test will have 3-4 questions. Roughly, one question will be on monopolies, one on general equilibrium, one on game theory, and one on externalities and/or public goods.

Monopoly

- 1) Going from utility functions to demand curves
- 2) Solving Monopoly problems with demand curves $Q(p)$ and inverse demand curves $P(q)$.
- 3) 1st, 2nd, 3rd degree price discrimination
 - a. Inefficiencies and Deadweight Losses
 - b. Typical outcomes with price instruments, with price and tariffs
- 4) 2nd Degree price discriminations with two types of agents
 - a. IR constraints and IC constraints
 - b. Outcomes: Efficiency in high market, distortions + no consumer surplus in low market. Possible shut down in low market.
 - c. Quality screening

General Equilibrium

1. First and Second Welfare Theorems
2. Finding the Walrasian Equilibrium with two agents
 - a. Finding demand functions from utility or indirect utility.
 - b. Solving utility maximization problems with endowments or simple production
3. Drawing an Edgeworth box
4. Definitions: Contract Curve, Walrasian Equilibrium, Competitive Equilibrium, Social Planner Problem, Externalities.

Game Theory

1. Normal Form and Extensive Form Games
2. Sequential vs Simultaneous move games
3. Definitions: Nash Equilibrium, Equilibrium in Dominant Strategies, Pure Strategy NE, Mixed Strategy NE.
4. Know how to find Pure and Mixed Strategy NE in simple 2x2 or 3x3 games.
5. Cournot, Bertrand, Stackleburg Oligopoly games
 - a. Reaction Functions
 - b. Entry and Exit
 - c. Hotelling Line Games (Will be covered in recitation on Friday)

Externalities/Public Goods

1. Definition of Externalities
 - a. Externalities in General Equilibrium
2. Definition of Public Goods
 - a. Tragedy of the Commons