Exam 2 Topics

Chapter 3: Consumer Theory

- Basic components of consumer behavior
- Preferences
  - Ranking of bundles
  - At least as good as relation
  - Properties of preference relations
    - Completeness, transitivity, more is better, prefer averages to extremes
  - Preference maps
    - Properties of preference maps and indifference curves (IC)
      - Increasing, IC through every point, no crossing, downwards sloping, not thick, form convex sets
- Utility
  - Describes preferences with a function
  - Ordinal not cardinal
  - Properties of utility functions
  - Indifference curves from utility
  - Slope of indifference curve is MRS
  - Define MRS as ratio of marginal utilities
  - Types of preferences
    - Perfect substitutes, convex, kinky, perfect complements
- Budget Constraint
  - What it is
  - Equation
  - Changes in income and prices
  - Slope of budget constraint is MRT
  - How taxes/subsidies/rationing change the budget constraint
    - Income taxes/subsidies
    - Good taxes/subsidies
    - Per unit/ad valorem
- Consumer's Problem
  - Maximize utility subject to the budget constraint
  - Solve for the consumer's optimal bundle
  - Two types of solutions
    - Interior solution has MRS = MRT
      - Use Lagrange's method
    - Corner solution has consumption of one good = 0

Chapter 4: Demand

- Derive the demand function and inverse demand function from the consumer's problem
- Comparative statics of the consumer's problem
  - How does a change in income affect demand
    - Wealth expansion paths/Engel curves
    - Normal or inferior goods
  - How does a change in price affect demand
- Own price effects are comprised of an income effect and a substitution effect
- Use the Slutsky equation to separate the two effects
- Cross price effects define (gross) substitutes or complements

Chapter 5: Welfare and Policy Analysis
- Welfare analysis
  - How does a change in price affect consumer's well being
  - Welfare measures of compensating variation and equivalent variation
    - What are they and what's the difference
  - Change in consumer surplus
  - How are compensating variation, equivalent variation and the change in consumer surplus related
- Government policies and welfare

Chapter 6: Producer Theory
- Firms
  - Types of firms
  - Ownership structures of private firms
  - Management of firms
  - Objectives of management
  - The theory of the firm
    - What to produce or buy?
- Production
  - Inputs/factors of production
  - Production function
    - Examples
  - Marginal products
  - Average products
  - Relationship between average products and marginal products
  - Diminishing returns
  - Diminishing marginal returns
  - Isoquants
    - What is it
    - How do you find an isoquant
    - Properties of isoquants
    - Isoquants for particular production functions
    - Diminishing marginal rates of technical substitution
    - Elasticity of Substitution
  - Returns to scale
  - Productivity/technical change

Chapter 7: Costs
- Types of Costs
  - How to treat capital costs
  - Short run cost measures
  - Shapes of cost measures
• Short run cost functions
• Long run cost functions
  ◦ Cost minimization problem
    ▪ How to setup the Lagrangian and solve
    ▪ Comparative statics
  ◦ Share of long run cost curves
• Compare long run costs to short run costs
• Scale and scope