Midterm Exam 1 Guide

I. Midterm Rules

a. Exam in 145 Dwinelle, 10:00-11:30
b. No blue books required.
c. No text, notes, calculators allowed.
d. Sit in section for your GSI. Seating Chart online & on overhead at exam.
e. Arrive Early, sit toward middle. If you need aisle seat, stand in aisle when others need to pass you.
f. Begin only when told to start. Stop when told to stop. Pass exam to GSI.
g. If fire alarm rings, collect your things, follow your GSI to steps of Dwinelle to take exam.

II. Midterm 1 Topics Outline

Coverage through Lecture 6 topics

Chapter 1

1) Economic Surplus
2) Opportunity Cost
3) MB=MC rule

Chapter 2 & 16

1) Construct PPF
   a. Calculate OC
   b. Draw PPF
   c. Interpret vertical intercept, horizontal intercept, changing slope
2) Comparative vs absolute advantage
3) Gains from specialization

Chapter 3

1) Change in quantity demanded or supplied vs Change in demand or supply
2) Demand shifters
3) Supply shifters
4) Equilibrium price and quantity

Chapter 4

1) Price elasticity of demand
2) Cross price elasticity of demand (sign)
3) Income elasticity (sign)
4) Price elasticity of supply
5) Perfectly inelastic vs perfectly elastic (demand, supply)
6) Elasticity changes along linear demand
7) Elasticity and total revenue
Chapter 5

1) Utility maximization
   a. Rational spending rule
   b. Law of diminishing marginal utility
2) Market demand (horizontal sum)
3) Consumer surplus

Chapter 6

1) Profit Maximization
   a. Step 1: Output decision \( P = MC \)
      Step 2: SR Shutdown decision, operate if \( P > \text{Min AVC} \) (\( TR > TVC \))
   b. Note: If \( P > \text{Min AVC} \) and Loss operate in SR, exit in LR
2) Perfectly Competitive Firm Assumptions
3) Variable Cost and Fixed Costs
4) Marginal Cost, Average Variable Cost, Average Total Cost
   a. Graphical and Numerical
   b. Calculation of Profit/Loss
5) Market Supply (horizontal sum)
6) Producer Surplus

Chapter 8

1) Economic Profit
   a. Economic costs include opportunity costs
   b. Economic costs = explicit plus implicit
   c. Another name for opp cost is implicit cost.
      Firm context: normal profit or return to owners’ resources
      i. labor
      ii. land
      iii. capital
2) Profit/Loss and Entry & Exit leads to zero economic profit in LR

Chapter 7

1) ED/ES Again
   a. excess demand: quantity supplied exchanged on market
   b. excess supply: quantity demanded exchanged on market
2) Analysis with producer and consumer surplus
   a. price ceiling
   b. price floor
   c. tax
   d. subsidy

Chapter 9

1) Monopoly (sources of market power/reasons for monopoly)
2) Perfect vs Imperfect competition (Demand curve facing individual firm)
   a. Monopolist D and MR curves
   b. Linear Demand: \( P = a - bQ \) and \( MR = a - 2bQ \)
3) Profit Maximization Decision
4) DWL from monopoly
   a. MB > MC at profit max output
   b. Qm lower than Qpc
5) Natural Monopoly
   Everywhere declining ATC (AC) => MC below ATC everywhere, ie in relevant range of output
6) Price discrimination
   a. Q with price discrim > Qm
   b. Surplus extracted

Chapter 10,12

1) Elements of Game (player, payoff, strategies)
2) Dominant Strategy
3) Nash Equilibrium
4) Prisoner’s Dilemma (individual rationality vs socially optimal outcome)
   a. Classic prisoner’s problem
   b. Rival oligopoly firms
   c. Cartel (colluding firms)

Chapter 12

Lemons model

Chapter 11

1) Positive and Negative Externality
2) Social vs private optimum
3) Coase Theorem

Chapter 15

1) Types of goods (rival/nonrival, excludable/nonexcludable)
   a. private
   b. public
   c. commons
   d. collective
2) Demand for public good
3) Classic Problems
   a. Public good: Free Rider
   b. Commons Good: Tragedy of Commons