

## Final Exam Guide

### I. Exam Rules

- a. **Exam in 145 Dwinelle, 10:00-12:00**
- 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.

**THE FINAL EXAM IS COMPREHENSIVE. Topics are those covered in lecture and section during weeks 1 through 8. Review lecture slides/notes, problem sets, midterm exams, past final exam and section notes.**

### II. Types of Questions You Can Expect To See With Very High Probability!!!

**Not an absolute guarantee. Very Likely. This is just a guide.**

#### **15/20 Point**

- 1) Trade (tariffs/quotas)
- 2) Flexible Exchange Rates (Demand & Supply)
- 3) Extension of Basic Keynesian Model (Analysis of one Supply Shock & self correction vs stabilization).
- 4) Supply & Demand & Elasticity
- 5) Welfare Analysis (tax, price ceiling, price floor)
- 6) Perfect Competition
- 7) Remainder: other topics from course

#### **5/10 Points**

- 1) News Analysis (like on past final exam)
- 2) Regulation of natural monopoly
- 3) Regulation of pollution (standard vs tax vs permit). Good idea to know how the lecture problem was done, but you won't get a numerical problem on exam.
- 4) Coase Theorem
- 5) Monopoly
- 6) Monetary policy (under open economy, open market operation, FED reaction function/Taylor Rule)
- 7) Fiscal Policy
- 8) Basic Keynesian Model
- 9) Remainder: other topics from course

**Use Course Topics Outline (IV below) for guide on definitions coverage**

### **III. Problems to Review**

- 1) Past Final (Fall 2002)
- 2) Summer 2003 Midterms
- 3) Summer 2003 Lecture Problems
- 4) Summer 2003 Problem Sets

**Note: Section Problems are important but since coverage varies, I ask you to focus on the above for review. If you have time, go back & review section notes too.**

### **IV. Course Topics Outline**

#### **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)

## 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.  $Q_m$  lower than  $Q_{pc}$
- 5) Natural Monopoly  
Everywhere declining ATC (AC)  $\Rightarrow$  MC below ATC everywhere, ie in relevant range of output
- 6) Price discrimination

### **Chapter 10**

- 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 13**

- 1) Labor as derived demand (Value Marginal Product)
- 2) Labor Market (Demand & Supply & Wage)
- 3) Wage in unionized vs non-unionized market

### **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

### **Chapter 16**

- 1) PPF and consumption possibilities (fig 16.4, 16.5)
- 2) Graphical presentation (fig 16.6-16.9)
  - a. Import, Export (ED/ES)
  - b. Tariffs (winners/losers)
  - c. Quotas (winners/losers)

### Chapter 18:

GDP

- i) Market value definition (page 447, not in required reading)

- a. final goods and services
- b. produced within a country during given time period
- ii) Expenditure method (**focus for class**)
- iii) Nominal vs Real GDP (Skip section “GDP and the Incomes of Capital and Labor”)

#### Unemployment

- i) Labor Force (and working age population)
- ii) Unemployment rate
- iii) Participation rate
- iv) Understated employment (disguised unemployment)
- v) Costs

#### Chapter 19

##### Inflation

- i) definition
- ii) how to measure (eg. use CPI)
- iii) CPI bias (quality adjustment , substitution )
- iv) Costs

##### Real Variables

- i) real GDP (Chapter 18)
- ii) real wage
- iii) real interest rate (unexpected inflation, Fisher effect)
- iv) indexing

#### Chapter 20

##### Productivity & Growth

- i) Economic growth (review compounding)
- ii)  $Y/Pop = Y/N \times N/Pop$  Equation
  - a. Real GDP per capita  $Y/Pop$
  - b. Average productivity of labor  $APL = Y/N$
- iii)  $Y/N$  determinants
- iv) Policies to promote growth

#### Chapter 21

Review of Demand for Labor via exercise 21.3

##### Types of Unemployment

- i) Frictional
- ii) Structural
- iii) Cyclical

#### Chapter 22

- 1) Saving, National Saving , Public and Private saving
- 2) Saving as flow, wealth as stock, Changes in Wealth
- 3) Why people save; impact of  $r$  on savings

- 4) Factors that affect I; impact of  $r$  on investment (recap page)
- 5) S and D for savings and investment ( $S=I$  in closed economy)  
S & D for funds (S & I), shifts of S and D

### Chapter 24

- 1) Stocks & Bonds
  - i) Purpose
  - ii) Bonds (Coupon rate(yield), Inverse Relation between bond price & current interest rate )
  - iii) Stocks Price (expected return on dividends & capital gains, risk premium, inverse relation between price and interest rate)
- 2) International capital flows
  - i)  $NX+KI=0$
  - ii)  $S+KI=I$  (Shifts of KI, augments ideas on shifts of S & I above)

### Chapter 25

- 1) Potential output
- 2) Output gap
  - a. recessionary
  - b. expansionary
- 3) Natural rate of unemployment
- 4) Okun's Law

### Chapter 26

- 1) AD: planned vs actual spending (change in inventory)
- 2) Consumption Function and MPC
- 3) Autonomous vs Induced spending
- 4) Keynesian Model
  - i) Key assumption
  - ii) Keynesian Cross Diagram
    - a) Shifts in AD
    - b) Equilibrium Output
    - c) Potential Output
    - d) Gaps (recessionary/expansionary)
- 5) Income-expenditure multiplier

### Chapter 23 & 27

- 1) Fractional Reserve banking
  - a. Required Reserve Deposit Ratio
  - b. Money Supply (M1)
- 2) Federal Reserve (FED)
  - i) Buying/Selling Bonds (Open Market Operations)
    - a) Relationship between Price of Bonds and Interest rate
    - b) Money D& S (equilibrium, shifts, stabilization by FED)
  - ii) Federal Funds Rate
- 3) Keynesian Model
  - i) Keynesian cross, PAE as function of  $r$
  - ii) FED fights inflation, FED fights recession
- 3) Taylor Rule (predicts observed behavior of FED, whose decision making process is secret)

## Chapter 29

- 1) Real Exchange Rate (formula: using  $e$ ,  $P$ ,  $P^f$ )
- 2) Flexible Exchange Rates (SR)
  - a) Demand (movement along, shift)
  - b) Supply (movement along, shift)
  - c) S&D Equilibrium ( $e^*$ ,  $Q^*$ )
- 3) Flexible Exchange Rates (LR)
  - a) Law of One Price
  - b) PPP
  - a)
- 4) Monetary Policy ( $r$  &  $e^*$ )
  - a) Flexible Exchange Rate
  - b) Fixed Exchange Rate
- 5) Speculative Attack

## Extension of Basic Keynesian Model

- 1) AD curve ( $Y$  vs  $\pi$ ; each point is “SR equilibrium  $Y=AD$  point”)
  - a) Movement Along (Downward sloping, Fed Reaction Function held fixed)
  - b) Shift
    - i) Autonomous AD change
    - ii) Fed Policy Reaction Function Shift (Tightening, Easing)
- 2) Short-run Aggregate Supply SRAS (line at  $\pi$ )
- 3) Long-run Aggregate Supply LRAS (line at  $Y^*$ )
- 4) Equilibrium
  - a) Self Correction (SRAS shifts)
  - b) Stabilization Policy
    - i) Monetary (change  $r$  at given  $\pi$ , i.e. Fed reaction function shift; shifts AD)
    - ii) Fiscal (change  $G$ ,  $T$ ; shifts AD)

## Determinants of Inflation

- a) Output Gap (eg. Military buildup)
- b) Aggregate Supply shocks
  - i) SRAS (eg oil price increase)
  - ii) LRAS (eg Increase in Productivity, Terrorism)