

ECON 101: Principles of Microeconomics (Fall 2013)

Review Sheet (also known as “*The Giant Flash Card*”) for Topics Covered in Midterm 1¹

DO NOT BRING THIS REVIEW SHEET TO THE EXAM!

The following topics have been covered in lectures and discussion sections, so you are expected to know these and be able to solve WITH ACCURACY and SPEED. There will be 30 questions in 75 minutes, so you should average out 2.5 minutes per question. Even if some questions might take you less than 30 seconds, others might take as long as 5 minutes, spare your time accordingly. *Rule of thumb: if the additional (marginal) benefit is greater than additional (marginal) cost, do it! Otherwise, don't! (In fact, this is the main idea of every economic concepts!) You are maximizing the probability of getting the questions right, subject to the time constraint – if the additional time cost needed to get them right is higher the additional benefit, then you should do other questions!*

Topics studied so far are inter-related, you should expect something to cross-over with each other, e.g. curve shifting and shifts in demand and supply.

• Mathematical preliminaries

- Finding equations of lines – both cases of (a) given a point and a slope or (b) given two points. How to shift a line horizontally or vertically?
- Solving linear equations, system of linear equations, find intercepts, find intersection
- Percentage, weighted average, how to set up and find the unknowns in averages
- Fraction, multiplication-division by hand (No calculators or Pentium processors in exam!)
 - * *All these will be applied in the subsequent topics, so you should know and be able solve quickly*

• Definition of economics and preliminaries

- What is economics? What are positive and normative statements? What are types of data and how are they different? What is scarcity and choice?
- Opportunity costs: what is it? How is it defined? How to find? (Make sure you get the units correct to what you are being asked, e.g. opportunity cost of writing an email to you is in terms of how many of a computer program I can write, so 2 computer programs per email, etc.) What is law of increasing opportunity cost?
- Absolute and comparative advantage: what are they? How to find? Any relation to opportunity cost? What are abstract and concept of absolute and comparative advantage? What is the range of trading price?
- Production possibility frontiers: what is it? How is it defined? How to find individual and joint PPF? What is the relationship to opportunity costs and PPF slopes? (Clearly joint PPF is not a simple way of horizontal or vertical summation! But how?) What are kink points? Why there are kink points and how to find them?
- What is economic growth? What attributes to economic growth? How do they affect the PPF and all the analysis made before and after?

• Demand and supply – the basics

- What is individual demand and individual supply? How to obtain market demand and market supply from individual information? (Is it horizontal summation or vertical summation?)

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- What is demand and supply function? What is demand and supply curve? How to plot the demand and supply curve? (I can't emphasize anymore but you must put P on y-axis and Q on x-axis, even if you're in a panic!)
 - How to get an equation for demand-supply function/curve? How to solve for equilibrium price and quantity? What are shortage and surplus? (Clearly surplus here means excess supply.) How to calculate consumer and producer surpluses? (Clearly surplus here is extra happiness on each party.) What is the meaning of consumer and producer surpluses? What is producer revenue/consumer expenditure?
 - How does the market adjust itself? What is the signal of such adjustment? What is the difference between moving along the curve and shifting the curve? Is it increase/decrease in demand/supply or increase/decrease in quantity demanded/supplied?
 - What is the meaning of a horizontal (left-right) shift in demand-supply – by quantity or by price? (Think carefully!) How to get the equation of each curve after shift? What happen after the shifts - definite answers or ambiguous answers? What is the new equilibrium after shifts?
 - What factors attributes to shifting each curve? How do they get shifted? (Consumer side: normal vs. inferior, complements vs. substitutes; producer side: factor of productions, etc.)
- **Demand and supply – the government intervention locally**
 - What happen in price floors, price ceilings, excise tax? Is there a shift vertically (up-down) or just something that crosses through the demand-supply curves?
 - When there are a price floors/price ceilings/quantity quota, are they always effective/binding? How to find shortages/surpluses, i.e. excess demand/supply? How to calculate consumer/producer surpluses? Who pays/receives how much and how many transacted/produced? How to calculate the deadweight loss? What is the black market and is there always black market resulting from each policy? What are socially wasteful results from each policy?
 - What are the natures of agricultural goods? What happen if it is intervened by price floor program or price subsidy/guarantee program? (Storage cost or no storage cost?) Who pays how much? Who produces and stores how many? How to draw the graphs and determine the effects in each policy?
 - What happen to each curve after there are price floors/price ceiling/excise tax policies? If they shift, how do they look like? Which side the tax is applied? How to find the equation of demand/supply curve after I apply the tax? How to draw the graphs for each policy on each side of the market?
 - How to calculate the new price, new quantity, price of goods traded to consumer's hand, price that producer receives, surplus, shortage, government cost/revenue, deadweight loss? What is the consumer's stake and producer's stake?

☺ *Good Luck for Your Midterm 1 Exam!* ☺