Mid-term 2 Review Sheet

Intertemporal Choice
- What are the two “goods” in the basic framework used to model intertemporal choice?
- What constitutes an “endowment” in the context of intertemporal choice?
- How do you draw an individual’s budget constraint over consumption today and consumption in the future given an endowment and a going interest rate?
- What determines the slope of the budget constraint?
- How do you determine whether an individual is a borrower or a lender?
- How will a change in the interest rate affect the behavior of borrowers?
- How will a change in the interest rate affect the behavior of lenders?
- If an individual’s preferences over consumption this period and consumption next period are captured by a Cobb-Douglas utility function, how do you find his optimal bundle given his endowment and the going interest rate?
- How do you determine the present value for a payment n periods from now? How do you determine the present value of a stream of payments? Why is calculating the present value of different payment streams informative?

Market Demand
- How do you derive market demand curve from individual demand curves?
- What is the extensive margin? What is the intensive margin?
- What types of “shocks” can cause the market demand curve to shift?
- What is the price elasticity of demand? How is it defined? What is it measuring?

Technology
- What do we mean by factor inputs or factors of production?
- What is a production function?
- What is an isoquant? What does it mean to move to a higher isoquant?
- How can we depict a given production function graphically using isoquants?
- What do isoquants for perfect substitutes look like? How about isoquants for perfect complements?
- What do we mean by marginal product (MP)? What do we mean by Technical Rate of Substitution (TRS)? How is it related to marginal product? How is it related to a firm’s isoquants?
- What do we mean by Diminishing TRS?

Firm Behavior
- What are opportunity costs?
- What is an iso-cost curve? How is it related to input prices? What happens to a firm’s iso-cost curves when an input price changes?
- What are two stages to the firm’s production decision?
- What is a profit-maximizing firm’s objective when deciding how to produce any specific amount of output?
- Given two inputs and a diminishing TRS, how do we graphically depict a profit maximizing firm’s optimal way of producing any specific amount of output? How do we show how this optimal way will change as the price of one of the input prices change?
- What is a conditional factor demand curve? What will it be given a Cobb-Douglas production function? How do you depict the derivation of a conditional factor demand function graphically?
- How is the slope of the conditional factor demand curve for a given input related to the degree of substitutability between it and other inputs in the production process?

Cost Functions
• What is a firm’s cost function? How is it derived?
• How do we derive a cost function for a firm with Cobb-Douglas technology with two variable inputs? What will be the form of the cost function? What will a change in an input price do the firm’s cost of producing any given level of output?
• What do we mean by the short-run? Will a firm’s cost of producing a given level of output generally be greater in the short-run or the long-run?
• How do we derive the Average cost curve, the average variable cost curve, and the marginal cost curve?
• What do we know about where Marginal cost curve intersects the average cost curve or the average variable cost curve?
• How does a firm’s long-run marginal cost curve differ from any of its short-run marginal cost curves? How do we interpret the difference between short-run and long-run marginal cost curves?

Firm Supply
• What condition should hold when firms are producing the profit maximizing level of output? Why is this true?
• How do we derive a firm’s supply curve from its cost curve?
• How is a firm’s supply curve affected by a change in one of its input prices? How about by a change in technology that makes one of its inputs more efficient?
• How will long run supply curve relate to any given short-run supply curve?
• What is the substitution effect? How about the scale effect?

Market Supply
• How do we derive the market supply curve given a bunch of firm’s cost functions?
• What determines whether a firm will enter a market?
• Why is it the case that under perfect competition, the price consumers pay for a good will equal the cost of bringing that good to market?
• What happens to the Market supply curve in the long-run under perfect competition?
• What do we mean by zero economic profits? How does this relate to long-run market supply under perfect competition?
• How can a firm make positive economic profits in the long-run? What do we call these long-run profits?

Equilibrium
• Given a market demand curve and a market supply curve, how do you find the equilibrium price and quantity?
• What is producer surplus? What is consumer surplus? Net surplus?
• What is the relationship between Pareto Efficiency and market outcomes under perfect competition?
• Why is there sometimes a tension between efficiency and income distribution?
• What do we mean by "tax incidence"? How is it related to relative elasticity of supply vs demand?