

## Economics Midterm Exam

### Study Guide

1. When would you consume more of any commodity?
  - If the additional unit of that commodity provides you with higher satisfaction?
  - If it provides you with larger extra benefit than the price you pay for it?
  - If you paid a flat rate price for it before you started consuming it?
2. What is the opportunity cost of any action, decision?
3. What is the scarcity principle?
4. When you calculate the total cost of any decision you make, do you or do you not take into account the opportunity cost (implicit cost) of your decision?
5. You need to be familiar with the concepts of “opportunity cost”, “absolute advantage” and “comparative advantage”. How do you find a person’s or a country’s comparative advantage in some activity or in an industry, respectively?
6. We derived the production possibilities’ curve, PPC (or production possibilities’ frontier, PPF) from knowing the workers’ productivity level in different industries, and the size of employment in a country. You need to be familiar with the notions of “attainable and efficient production level” “attainable, but inefficient production level”, and “unattainable production level”.
7. If you know the market demand curve and the market supply curve, how can you find the equilibrium price in this market? You need to find the equilibrium price and quantity if the demand function is  $Q_D = A - B \cdot P$ , while the supply function is given as  $Q_S = C + D \cdot P$ .
8. If market demand and market supply are given by linear curves, how would you find total consumer surplus and producer surplus at the equilibrium price?
9. If the number of suppliers in an industry increases, what changes would we expect to occur with regard to the quantity supplied of this industry’s product; with the product’s price; with the supply and the demand curve? How can we derive the market supply curve from individual supply curves?
10. When we discussed the companies’ technology and supply we made a distinction between the short-run and the long-run production function of a company. How would you define these terms?
11. How did we define the marginal product function of the input factors (labor, capital, etc.)?

12. You have seen the following formula in class:  $\frac{p_X}{p_Y} = \frac{MPL_Y}{MPL_X}$ , where  $p_X$  and  $p_Y$  represent the price of product X, and product Y, respectively, while  $MPL_X$  and  $MPL_Y$  are the marginal product of labor (in other words, the workers' productivity level) in producing product X or product Y. The left-hand side of the formula shows product X's relative price, while the right-hand side reflects relative productivity levels of producing X or Y. This latter one is the opportunity cost of producing product X.
13. If a producer uses an input factor (e.g., capital) in a fixed quantity but the quantity of the other input factor, say labor, is increasing, then the output level of the producer will exponentially increase, but only up to a certain production level. Beyond that level, diminishing returns will set in.
14. You need to be familiar with the concept of increasing, constant and diminishing returns to scale.
15. You need to remember that we derived the companies cost function from finding the minimum cost level of a given output quantity. That means that we need to find the lowest iso-cost line (same-cost, budget line) that is tangent to the given isoquant curve. It is a conditional cost minimization exercise, finding minimum costs with the condition that a specific quantity should be produced.
16. We discussed in class that total average cost is decreasing if the marginal cost curve is below the average cost curve, but ATC will increase if the MC curve is above the ATC curve. Where is the minimum point of the ATC curve?
17. You need to know how to find a company's cost function in the short-run and in the long-run, given the input factor prices and the production function of the firm.
18. You need to be familiar with the specific features of the average fixed cost curve [AFC(q)], the average variable cost curve [AVC(q)] and the average total cost curve [ATC(q)].
19. You need to be able to define the basic conditions of a perfectly competitive market (industry), those of a natural monopoly, monopolistic competition and oligopoly.
20. We assumed in this course that firms strive to maximize their profit. How do perfectly competitive companies find the profit maximizing level of their output? What is the break-even condition for the profit maximizing companies?
21. How did we define the shut-down condition for companies in the short run and in the long run?
22. How will a monopoly find its profit maximizing output level or the profit maximizing price?