

This review sheet is intended to cover everything that could be on the exam; however, it is possible that I will have accidentally left something off. You are still responsible for everything in the chapters covered except anything that I explicitly say you are not responsible for. Therefore, if I left something off of this sheet, it can still be on the exam. There will be no multiple-choice questions. Most of the questions will be like the ones in the homework assignments, and possibly a few definition questions, but I am more likely to ask questions that make you use the definitions rather than recite them. I will probably ask one of the questions from the book at the end of the chapters.

The review session will be at a time to be determined in class, most likely Thursday, April 13th.

Note that the last time I taught this course, it met TTh, so you will want to check old Exams #2 & #3.

Chapter 22: What is the difference between **short-run** and **long-run**? Be able to fill in a table with **TPL**, **APL**, and **MPL**. Also, be able to draw them. Know why they take the shape they take, especially **MPL**. Be able to fill in a big table with the columns **Q**, **TC**, **TVC**, **TFC**, **ATC**, **AVC**, **AFC**, and **MC**. (I may not do them in that order.) Be able to know what the curves should look like and why **MC** starts where **AVC** starts, **MC** goes through the minima of **AVC** and **ATC**, when **MC** is below **AVC** or **ATC**, that curve will go down, and when **MC** is above **AVC** or **ATC**, that curve will slope up. Understand why that general principle (M crosses max or min of A) holds for M of anything and A of the same thing. Be able to illustrate movements of those curves and/or to find the errors in a graph. Understand how the product of labor curves relate to the cost curves. How do the long-run cost curves relate to the short-run curves?

Chapter 23: Understand why **$MR=MC$** is profit maximizing for ALL firms regardless of type. What is meant by **perfect competition**? Why do those firms have **$MR = AR = P$** ? Be able to find on the **MC/ATC/AVC/D/MR** diagram: the quantity a firm produces, the price they charge, their profits or their losses. Determine the **short-run and long-run shutdown prices**. Why do firms shut down then? How do we get the **supply curve for a firm**? How do we get the **industry short-run supply curve** from the firms' curves? For the graph on Page 544, only worry about **constant cost industries**. However, you should know what could cause the **decreasing cost industry** and the **increasing cost industry**. (The graphs for increasing and decreasing cost industries are too difficult.) Know how the industry and firm supply/demand diagrams inter-relate.

Chapter 24 until Page 543: What is a **monopolist**? Why does it need a **barrier to entry**? How do the following cause barriers to entry? **Ownership of resources, economies of scale (natural monopoly), licences, franchises, patents, tariffs, and regulations**. What is a **cartel**? How do the **demand and marginal revenue curves of a monopolist** differ from those of a perfectly competitive firm? Why are they like that? What is meant by **price searcher**, a.k.a. **price setter**? Why do **all** profit maximizing firms set **$MR=MC$** ? Be able to draw the **ATC/MC/AVC/D/MR** diagram for a monopoly and find the quantity produced and price charged.

Non-graded Homework Assignment #7A to be reviewed with Assignment #7.

- 1) (10 points) Explain how the long-run industry supply curve could be downward sloping.
- 2) (35 points) Draw a perfectly competitive industry's demand, long-run supply and short-run supply. Beside it draw a firm's **D/ATC/AVC/MC** diagram. Have both diagrams show the industry is in the long-run equilibrium. Explain how you know everything is in the long-run equilibrium. How did you use the firm's diagram to get the two supply curves for the industry?
- 3) (25 points) Draw the **D/ATC/AVC/MC** diagram for a monopoly making profits. Find the quantity produced, price charged, consumer surplus, and producer surplus. State how you found them.
- 4) (20 points) Draw the **D/ATC/MC** diagram for a natural monopoly. Explain why that type of industry will always have a monopoly.
- 5) (10 points) Why do cartels tend to fall apart?