

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, probably Tues. 4/29.

Chapter 16: What is the difference between **partial equilibrium** and **general equilibrium** analysis? Which do we care about? What does **Pareto optimal** mean? Be able to understand the **Edgeworth box**. Use it to find the contract curve, prove that it is Pareto optimal, and that the competitive market is efficient. Understand the drawing I did for how an incorrect price shows **excess demand** for one good and **excess supply** for the other. What happens to solve the problem? Understand why that model results in  $MRS_{XY}^A = P_X/P_Y = MRS_{XY}^B$ . How do we get the **utility possibilities frontier** from the Edgeworth Box? What is meant by a **social welfare function**? What are the advantages and disadvantages of the four social welfare functions, a.k.a. **views of equity**? How can we tell if we have **technical efficiency** and how does it relate to the **MRTS**? What is the **PPF**? Why does it take that shape and how do we find its slope and how does that relate to the **MRT**? How do we tell if we are producing and consuming efficiently? How does the **MRS** relate to this question? Be able to use the PPF diagram to prove that trade increases both countries' utility. How do we find **comparative advantage** and **absolute advantage**? Which determines trade? What is the **law of comparative advantage**? Be able to use a numerical example to prove that both sides gain from trade. Hint: Make sure the new price is between the two **autarky** prices. The three efficiency conditions mentioned above are summarized nicely on Page 624. Be able to explain how **market power**, **incomplete information**, **externalities**, and **public goods** cause **markets to fail**.

Chapter 17: Understand how **asymmetric information** can lead to the **lemons problem**. What is **adverse selection** and what are examples of it in insurance and credit markets? Understand the importance of **reputation** and **standardization** as a way to reduce the problem. Does Major League Baseball have a lemons problem? What is meant by **signaling**? Why and how is it done? Understand the graph on Page 641 showing education costs and benefits. How do **guarantees** and **warranties** help with signaling? What is **moral hazard**? Understand how it applies to the graph on Page 629 (MC/MB with moral hazard) and to other contracts. What is meant by the **principal-agent problem**? How does executive pay relate to this problem? How does it relate to the repairs? Skip Section 17.6 Understand the efficiency wage diagram. (Note: This is not the efficiency wage diagram you will get in ECON 350.)

Non-graded Homework Assignment #8A to be reviewed with Assignment #8.

- 1) (15 points) Explain how giving a CEO a bonus based upon current price of the stock can cause problems.
- 2) (20 points) Draw the efficiency wage diagram. Explain why the non-shirking constraint slopes up. How does the diagram explain why the wage may be above the market wage?
- 3) (35 points) Draw the diagrams which determine whether or not to go to college. Explain why we drew the diagram as we did – which was not how it was drawn in the book. How does this determine who

goes to college?

4) (15 points) What is *moral hazard*? Give an example from insurance. Explain how insurance companies reduce the problem.

5) (15 points) What is *adverse selection*? Give an example from banking. Explain how banks reduce the problem.

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#### Review sheet for the Final

Chapter 18: Understand the graph of how **negative externalities** cause inefficiencies. What are **MSC** and **MEC**? Understand the graph of how **positive externalities** cause inefficiencies. What are **MSB** and **MEB**? How do we use MEC and **MCA** to determine the optimal level of pollution? How can **fees** and **standards** be used to achieve the desired result? What are the advantages of both? (Personally, I feel it is rare that standards are better because it gives no revenue to the government.) How can **tradeable emission permits** be used to reduce the problem? Understand the diagram and problem of getting the optimal amount of **recycling**. How do we get the efficient level of **recycling**? What is a **stock externality**? Why is it harder to deal with than the normal (**flow**) externalities? How do we do the NPV of a policy? How do **property rights** relate to externalities? Understand the logic and impact of the **Coase Theorem**. What are potential problems with the theorem? Understand the tragedy of the **commons resource** diagram. What are public goods? How do they cause efficiency problems? Why are the demand curves added vertically for public goods, but horizontally for all other goods? What is the **free rider** problem? Why does the median voter matter?

When I write the final, I look for the most important topics and I ask questions about them. Then I look for questions which I wanted to ask about, but was unable to ask about. Those are put on the final. Obviously, there will be questions from Chapter 18.

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This non-graded assignment is from the material after Exam #4.

1) (10 points) There is a lot of drilling going on in this area. According to the Coase Theorem, what proof do we have that this is the correct amount of drilling? What are potential problems with this logic?

2) (20 points) Draw the D/MC diagram for a public good with two consumers. Use it to find the optimal level of production. Explain how you found it.

3) (20 points) Explain the diagram for S/D for glass with recycled glass and non-recycled glass combined. Explain why the curves move as drawn. Explain the economic reasons for the price change and the quantities of both types of glass available. This graph does not show how to estimate the optimal refundable deposit fee. How should it be determined?

4A) (20 points) Draw the S/D diagram for a product like gasoline which causes a negative externality. Prove that we do not get the efficient level of production.

B) (20 points) Draw the MCA diagram for two firms with different costs of abatement. Use it to prove that fees are better than regulations.

C) (10 points) The arguments given in the book as to whether a fee (tax) or a standard is better relies on static analysis. Explain which is better for the long run. Why is that true?