

ECO 150, Winter 2022, Exam #1

Instructions

1. This exam consists of thirteen questions. Answer them all. You are encouraged to use the models from class (especially supply and demand) when formulating your answers.
2. Some questions are open ended. You will be graded more on the quality of your explanation than your specific answers. On “true/false” questions, for example, answering only “true” or “false” will receive no credit, even if correct.
3. Do not just copy from the course materials. Doing so will receive no credit.
4. This is an open note exam. You may use your notes, the textbook, and all course materials from the website. You may use electronic versions of these materials as well. You may not, however, use other materials, access the internet for any reason besides obtaining the allowed materials, or solicit help from any other person while taking this exam.

Please sign the following statement:

In completing this exam, I did not access any online resources besides the approved course materials, the textbook, and my own notes, nor did I communicate with any other student or person about this exam. I understand that doing so would be a violation of the Student Conduct Policy.

Sign:

Printed Name:

1. Consider a potential a carbon tax. Discuss how scarcity relates to this policy debate.

2. What tradeoffs exist in the decision to enact price ceilings on rental housing?

3. What causes economists to disagree over whether a higher minimum wage is good or bad policy?

Consider the market for electric cars. Assume that both firms and households are price takers and that they have full information. Note that table provides *total* cost and utility, not *marginal*.

Table 1: Market for Electric Cars

Units	Total Cost	Total Utility
100	20	200
200	50	350
300	80	470
400	120	570
500	170	650
600	230	710
700	300	760
800	380	800
900	480	830
1000	600	840

4. True or False. The supply curve for electric cars is upward sloping because the evidence shows that all supply curves, in all markets, have this shape.

5. Graph supply and demand. Solve for the equilibrium price and quantity.

6. Suppose that the price of gasoline increases. Explain how this will likely impact the market for electric cars. Note that there is not a single correct answer and your scores will depend on your explanation. [Hint: Make your assumptions very clear].

7. Suppose that the price of electric cars falls from 100 to 80. Calculate the price elasticity of demand.

8. Suppose that average household income increases by 20%. As a result, *marginal* utility rises by 70 for all units. Show what happens to the equilibrium price and quantity. Also state whether electric cars are a normal or inferior good.

9. Would a subsidy for electric car suppliers improve efficiency (the sum of consumer and producer surplus).

10. Why is having a large number of households in the market important for our model of supply and demand?

11. Consider a musical performance where it is costless to allow additional audience members but where it is possible to prevent them from attending (*e.g* a concert hall). Discuss whether this is a private or public good.

12. Describe a potential market failure connected to the covid-19 pandemic.

13. True or False? In order to remedy a positive externality (*e.g.* production spillover, education), a government must offer a subsidy to those who demand the good or service.