

Place your name on the back of this sheet of paper and nowhere else. Staple your answers face up on the front of this sheet of paper. Failure to follow these directions will cost you 10 points. Your assignment will be typed, except graphs can be drawn by hand and mathematical equations can be done by hand. Failure to type it will cost you 10 points. If you use double-sided printing or print on the back of scrap paper, I will give you one additional point.

1) (15 points) As we will see this semester, what happens in real life is not always what the theory says should happen. As this article from Columbia University says, between 97% and 99.9% of environmental scientists feel that climate change is real and caused by human activity. Do you think that theoretical communism (where the government owns all resources and makes all decisions about what to produce and how to produce it) or theoretical capitalism (where private firms and people own all resources and decide on what to produce and how) will do a better job at combating climate change? Explain your logic.

<https://www.publichealth.columbia.edu/news/communicating-consensus-strengthens-beliefs-about-climate-change>

2) (25 points) Suppose a company wants their employees to have better customer service. Give an example of a moral incentive which could achieve that goal. Briefly explain how it would get the desired result. Give an example of a material incentive which could achieve that goal. Briefly explain how it would get the desired result. Which of your two incentives do you think will normally work better? Explain your logic.

3) (20 points) What is the principal-agent problem? Give a specific example from running a company. Explain how that fits the definition. What could the principals do to reduce the problem? Explain how it would reduce the problem.

4) (25 points) According to this article, there is an increasing shortage of memory for phones, computers, etc. There are usually two indications that there is a problem. What are they? Explain how those two indicators can show there is a shortage. Draw a supply/demand diagram and use it to explain how the market will automatically correct itself.

<https://www.idc.com/resource-center/blog/global-memory-shortage-crisis-market-analysis-and-the-potential-impact-on-the-smartphone-and-pc-markets-in-2026/>

5) (15 points) Define public goods. I have seen economics textbooks and webpages say that police are public goods. Prove they are not.