

**MASTER 1**

**MARKETS AND ORGANIZATIONS**

*(durée 1h30)*

**Vendredi 18 décembre 2015 ~ 14h00 –15h30**

P. SEABRIGHT

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Answer at least two questions (some extra credit will be given for answering more than two questions, but it is better to answer two questions fully than to give incomplete answers to three or more).

**Question 1 :**

Can differential exposure to pollution explain either

- a) changes in relative test scores between black and white schoolchildren in the United States, or
- b) differences in life expectancy between northern and southern China between 1980 and 2000?

What does this show about the relative importance of public and private goods as determinants of human welfare?

**Question 2 :**

In a certain society individuals can choose to become producers of output or to steal the output produced by others. If they become producers they can choose how much of their time to devote directly to production and how much to devote to protecting their own output from thieves.

- a) Show, using a diagram or in any other way you think appropriate, how the proportion of individuals choosing to become producers will depend on the time allocation decision of other producers, and vice versa.
- b) Show the effect on decisions taken and overall output of a reduction in the costs of protecting output from thieves.
- c) What difference would it make to your analysis if instead you were analyzing the decision to become either producers of knowledge or imitators of the knowledge produced by others?
- d) Does this suggest that the case for protecting intellectual property is weaker than the case for protecting other forms of property?

### Question 3:

There are only two bidders in a second-price sealed bid auction for a house. They each have private valuations of the house drawn from a uniform distribution between zero and €2,000,000.

- a) Show that it is a Nash equilibrium for each to bid their true private value.
- b) Show that if instead there were a first-price sealed bid auction it would be a Nash equilibrium for each to bid one half of their true value.
- c) Does this imply that the first-price auction would raise less expected revenue than the second-price auction?
- d) Define the difference between private-values and common-values auctions. Are auctions for houses more likely to be private-values or common-values?
- e) If it were a common value auction, would it make a difference whether the auction were sealed-bid or open ascending? Why?

### Question 4:

Consider two platforms competing with one another in a two-sided market.

- a) Define “single-homing” and “multi-homing”.
- b) Is it possible for there to be single-homing on one side of the market and multi-homing on the other side? If so, give at least one real example. If not, explain why.
- c) Is the choice between single-homing and multi-homing determined by purely technological considerations?
- d) Comparing two markets, in the first of which multi-homing is easy and in the second of which multi-homing is difficult, in which of the two markets would you expect the entry of a new platform to have the most positive impact on the welfare of consumers? Why?
- e) What insights can be gained from analyzing ONE of the following as a type of platform: churches, charities, banks, terrorist groups?

### Question 5:

EITHER:

Has the internet solved the problem of deciding when we can justify trusting strangers?

OR:

Is it helpful to analyze the difference between Al-Qaeda and the Islamic State in terms of the difference between roving and stationary bandits?