

# Written Exam for the M.Sc. in Economics summer 2012

## **Auctions**

Final Exam

June 6, 2012

(3-hour closed book exam)

Please note that the language used in your exam paper must correspond to the language of the title for which you registered during exam registration. I.e. if you registered for the English title of the course, you must write your exam paper in English. Likewise, if you registered for the Danish title of the course or if you registered for the English title which was followed by “eksamen på dansk” in brackets, you must write your exam paper in Danish.

If you are in doubt about which title you registered for, please see the print of your exam registration from the students’ self-service system.

1. A luxury mansion in Sicilia with direct access to the sea has to be sold in an auction. There are rules preventing resale, so the buyers are all people who want it for their own personal use. The auction should be closed, but the seller must decide whether to use a first or a second price auction.

Some information is available on the potential buyers; it is known that they are business managers with incomes that are large but not so large that they can buy the property at any price. Is this information relevant for the decision about auction format, and if so, what should the decision be?

The seller feels very uneasy about the situation, in particular he dislikes the uncertainty about what buyers will actually pay. Does this matter for the choice of auction?

2. An owner of a dog of valuable breed has decided to sell five newborn puppies in an auction. He has decided to carry out the auction in five steps, selling one puppy at the time in an English auction, since in this way he expects to get the best prices for the puppies. Give an assessment based on relevant theory of this proposal.

During the auction, the seller observes the prices at which the puppies are sold. He has made a bet with his neighbor that prices will go up as the puppies are sold off since they become more scarce. Will he win this bet?

Comment briefly on the underlying assumptions and what will happen if they are not satisfied.

3. Three identical pieces of furniture have been obtained by a bank from a defaulted borrower, and the bank wants to sell them in an auction. It has been proposed to use a format where the interested buyers send in their bids, and then objects are allocated to highest bidders, and all bidders, winners or not, pay their bids.

A consultant tells the bank that the bidders will take into account that they must pay whether or not they get the object, so they will bid very much less than their true value. Give an assessment based on relevant theory.

It turns out that there are only four bidders, and that each bidder wants at most one piece of furniture. The consultant argues that buyers will bid  $1/4$  of their true value. Is this right?