

Mid-term examination:
Environmental Economic Theory
(PCP)

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NAME:

Write down your answers in the separate sheet. When you answer, make clear which question you are answering. **Use diagrams, figures or equations to show your understandings.** Use the space of this sheet for your calculation and so on.

1. Explain the following words.
 - (1) Deadweight loss. (Suggested time: 7 minutes.)
 - (2) Scarcity. (Suggested time: 7 minutes.)
2. Explain, by means of figures, how the optimal supply of public goods is obtained. (Suggested time: 15 minutes.)
3. Consider there are two plants both of which emit pollutants, and the total amounts of emission is $e = e_a + e_b$, where e is given. Then, explain how e_a and e_b should be allocated to each plant. (Suggested time: 15 minutes.)

The following is the bonus question. If you answer it properly, you will gain extra points.

4. Suppose that the government is trying to control pollution, considering the damage costs as well as the abatement costs. Explain how the optimal policy is deduced, by means of a figure or mathematics.