

### MASTER 1 in ECONOMICS MASTER 1 ECONOMIE ET DROIT

Public economics / code: M1S24

#### Lundi 1er juillet 2013

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- → durée conseillée pour traiter ce sujet : 1 heure
- → ATTENTION : le nom de la matière et son code doivent être IMPERATIVEMENT recopiés sur la copie d'examen

#### Instructions

- Please use the answer sheets that are provided.
- For each question there is one and only one correct answer.
- All questions are worth 1 point except those marked with a " \* " which are worth 2 points.

#### Questions

- 1. Firm 1 produces output x with a cost function  $c_1(x) = x^2 + 10$ . Firm 2 produces output y with a cost function  $c_2(y,x) = y^2 + 4x$ . Thus, the more firm 1 produces the greater are firm 2's costs. Both firms face competitive product markets. The competitive price of x is 20 and the competitive price of y is 40. No new firms can enter the industry and the old ones remain. The efficient Pigouvian tax on the x good is:
  - (a) 0.
  - (b) 1.
  - ⟨ (c) 2.
    - (d) 3.
    - (e) 4.
- 2. The Coase theorem implies all but which one of the following?
  - (a) Sometimes externalities can be internalized by assigning property rights to the offending party.
  - (b) Sometimes externalities can be internalized by assigning property rights to the offended party.
  - (c) Externalities can be internalized by assigning property rights to either party if the transactions costs are high enough.
  - (d) Private parties can sometimes deal with externalities through bribes and penalties, achieving efficiency without government intervention.

3. Let G be the number of hours of television broadcast each day. Consider two individuals of type A, two individuals of type B, and one individuals of type C with preferences:

$$U^A = \frac{G}{4}, U^B = 2 - G^{3/4}, U^C = G - \frac{G^2}{2}.$$

If G can take any value  $0 \le G \le 2$ , what is the majority voting outcome?

- (a) 0.
- (b) 1.
- (c) 1.5.
- (d) 2.
- 4. The voting (or Condorcet) paradox refers to
  - (a) the power of the median voter who may be poor.
  - (b) the lack of incentives for people to vote.
  - (c) the power of ill-informed voters to achieve efficient outcomes.
  - (d) inconsistent choice making through majority voting.
- 5. Consider a project which involves an investment cost now and generates benefits in the future. Which of the following changes will make the project more likely to be socially desirable?
  - (a) Benefits are delayed.
  - (b) Costs increase.
  - (c) The discount rate decreases.
  - (d) Benefits decrease.
- 6. If married women have greater labor supply elasticities than single women, efficiency considerations might suggest that an income tax taxes
  - (a) the married women at higher marginal rates.
  - (b) the single women at higher marginal rates.
  - (c) all women at the same marginal rates.
  - (d) only the married women.
- 7. Which of the following is true?
  - (a) A lump-sum tax has no effect on individuals' decisions.
  - (b) A lump-sum tax has a substitution effect on individuals' decisions.
  - (c) A lump-sum tax has an income effect on individuals' decisions.
  - (d) Income tax is a lump-sum tax.

- 8. When a competitive market has a horizontal supply curve and a monopolist has a horizontal marginal cost curve, which of the following statements is true of both markets if a specific tax is imposed on each?
  - (a) The extent to which price rises depends entirely on the shape of the demand curve.
  - (b) The extent to which quantity falls depends entirely on the shape of the supply curve.
  - (c) Price will increase, and increase by more in the monopolized market.
  - (d) None of the above.
- 9. \* Suppose that the (inverse) demand for a good of quantity q is p=a-q where a>0 and the good is produced by a monopolist with a constant marginal cost equal to c>0. Suppose that the government levies an ad valorem tax of  $\tau$  that is physically collected from the consumers. What is the resulting level of output?
  - (a)  $[a c(1+\tau)]/2$
  - (b)  $[a(1+\tau)-c]/2$
  - (c)  $\left[\frac{a}{(1+\tau)}-c\right]/2$
  - (d)  $\left[a-\frac{c}{(1+\tau)}\right]/2$

# Public Economics Economie Publique

## QCM Multiple choice, June 2013

### Student number (numéro d'étudiant) :

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