

Economics 2  
Winter 2005

your name \_\_\_\_\_  
your TA's name \_\_\_\_\_  
day and time of your discussion section \_\_\_\_\_

PRACTICE SECOND EXAM

**DIRECTIONS:** No calculators, books, or notes of any kind are allowed. All papers and notebooks must remain closed and on the floor at all times throughout the exam, and students are not allowed to leave the examination room until finished. Answer all questions in the space provided with the exam. 105 points are possible on this exam.

**HINTS:** Feel free to use either of the following formulas if you find them useful.

Area of a triangle = (1/2) (base) (height)

Area of a trapezoid = (1/2) (base1 + base2) (height)

**PART I: MULTIPLE CHOICE**—circle the correct answer (4 points each, 72 points total)

Questions 1-3 refer to the following payoff matrix for an advertising game between Firm A and Firm B:

		Firm B advertises	Firm B does not advertise
Firm A advertises	A gets 5 B gets 3	A gets 6 B gets 4	
Firm A does not advertise	A gets 4 B gets 4	A gets 5 B gets 3	

- 1.) Which of the following statements is correct?
  - a.) both Firm A and Firm B have a dominant strategy
  - b.) neither Firm A nor Firm B has a dominant strategy
  - c.) Firm A has a dominant strategy and Firm B does not have a dominant strategy
  - d.) Firm B has a dominant strategy and Firm A does not have a dominant strategy
  
- 2.) Which of the following payoffs would result from the Nash equilibrium?
  - a.) Firm A gets 5 and Firm B gets 3
  - b.) Firm A gets 6 and Firm B gets 4
  - c.) Firm A gets 4 and Firm B gets 4
  - d.) Firm A gets 5 and Firm B gets 3

- 3.) Suppose now that a timing element is added to the game. Firm B gets to move first, and this choice is announced to Firm A which is then able to make its choice already knowing what Firm B will do. In this case the Nash equilibrium is:
- Firm A gets 5 and Firm B gets 3
  - Firm A gets 6 and Firm B gets 4
  - Firm A gets 4 and Firm B gets 4
  - Firm A gets 5 and Firm B gets 3
- 4.) Let MSC denote marginal social cost, MPC marginal private cost, MSB marginal social benefit, and MPB marginal private benefit. According to economic theory, the optimal tax rate to charge per ton of sulfur oxides emitted as air pollution from a factory would be
- $MSC - MPC$
  - $MSC + MPC$
  - $MPB - MSC$
  - $MPB + MSC$
- 5.) The “tragedy of the commons” results from
- an excess of marginal social benefit over marginal social cost
  - an excess of marginal social benefit over marginal private cost
  - an excess of marginal private cost over marginal social cost
  - lack of private ownership
- 6.) The goal of issuing pollution permits to coal-fired power plants under the Clean Air Act Amendments of 1990 was
- to equalize the marginal cost of pollution abatement across facilities
  - to better monitor how much pollution was actually being emitted from each facility
  - to give the EPA direct control over how much pollution was emitted from each facility
  - to pay back the power companies for their big campaign contributions
- 7.) If someone ends up taking greater risks once he is insured than that person did before he was insured, it is called
- adverse selection
  - moral hazard
  - statistical discrimination
  - the tragedy of the commons
- 8.) If an insurance policy has a 10% chance of making a payout of \$100, then a risk-neutral person
- would be willing to pay more than \$10 premium to have the policy
  - would be willing to pay exactly \$10 premium to have the policy
  - would be willing to pay a positive premium for the policy but less than \$10
  - would not be willing to pay any premium for the policy
- 9.) Under which of the following conditions would costly signaling on the part of sellers not be effective?
- asymmetric information between buyers and sellers
  - buyers only pay attention to credible signals
  - sellers do not differ from each other in how costly it is to send the signal
  - sellers of the inferior product would like to pretend that they are selling the superior product

10.) Let  $P$  denote the price,  $W$  the wage,  $MP$  the marginal product, and  $MC$  the marginal cost. The value of marginal product can be calculated as

- a.)  $P \times MP$
- b.)  $P \times MC$
- c.)  $W \times MP$
- d.)  $W \times MC$

11.) What would be the most likely effect of switching from a means-tested benefit program to a negative income tax?

- a.) total employment would go up and the wage paid by employers for low-skill jobs would go up
- b.) total employment would go down and the wage paid by employers for low-skill jobs would go down
- c.) total employment would go down and the wage paid by employers for low-skill jobs would go up
- d.) total employment would go up and the wage paid by employers for low-skill jobs would go down

12.) John Rawls has argued that the answer as to whether it is moral to accept the current level of income inequality should be based on

- a.) the decisions people would make behind a “veil of ignorance”
- b.) whether income inequality is increasing or decreasing over time
- c.) whether the income inequality results from differences in the value of marginal product or is a consequence of statistical discrimination
- d.) I don't know so I guess I better read the book some more

**PART II: FILL IN THE BLANK (33 points total, no partial credit)**

See problem set 3 for sample problems.

**ANSWERS:** 1c, 2b, 3b, 4a, 5d, 6a, 7b, 8b, 9c, 10a, 11d, 12a