

## Public Sector Microeconomic Analysis

ECO 2110A – Winter 2013

C. Théoret

### **BLUE** Mid-Term Examination #1

1. An 80-minute examination with **35** multiple-choice questions.
2. One (1) point for correct answers; zero (0) for incorrect answers.
3. The Scantron sheet on which you answer all questions must be submitted as you leave the examination room.
4. Darken the appropriate ovals on the Scantron sheet for your name, student number, course number and answers.
5. Calculators are permissible during this examination.
6. Please leave your student ID card visible at all times.
7. You may keep the questionnaire for future reference.

1. A Pareto improvement is
  - a. a reallocation of resources that makes one person better off without making anyone else worse off.
  - b. a reallocation of resources that makes one person better off but makes another person worse off.
  - c. a reallocation of resources where the gains achieved by those who are made better off exceed the losses sustained by those who are made worse off.
  - d. none of these answers.
2. With regard to income, the First Fundamental Theorem of Welfare Economics requires
  - a. producers and consumers to be price takers.
  - b. that there be a market for every commodity.
  - c. that the economy operate at some point on the utility possibility curve.
  - d. all of the above.
3. The marginal rate of substitution is
  - a. the slope of the indifference curve.
  - b. the slope of the contract curve.
  - c. the slope of the utility possibilities curve.
  - d. none of the above.
4. A social welfare function
  - a. is a function made by the Department of Welfare.
  - b. is a function that shows that the utilities of society are incorporated into society's well-being.
  - c. can never be derived numerically.
  - d. is all of the above.
5. A movement from an inefficient allocation to an efficient allocation in the Edgeworth Box will

- a. increase the utility of all individuals.
  - b. increase the utility of at least one individual, but may decrease the level of utility of another person.
  - c. increase the utility of one individual, but cannot decrease the utility of any individual.
  - d. decrease the utility of all individuals.
6. Pareto efficiency is achieved when
- a. the gain from an exchange outweighs the loss.
  - b. all parties are made better off by an exchange.
  - c. at least one party is made better off by an exchange.
  - d. no party can be made better by an exchange without making at least one other party worse off.
7. In a two-good world the optimal combination of the goods to consume is that combination where
- a. the marginal rate of substitution (MRS) is minimized.
  - b. the marginal rate of substitution (MRS) equals the ratio of the prices of the two goods.
  - c. the budget line is flattest.
  - d. the consumer's preference is concave.
8. The set of Pareto efficient allocations in an Edgeworth box diagram is
- a. found along the flattest indifference curve of the individual in the upper right of the box.
  - b. the set of points on a straight line running from the lower left corner to the upper right corner of the box.
  - c. the most equitable allocation of resources among the individuals.
  - d. known as a contract curve
9. Welfare is maximized at the competitive market-clearing price and quantity because
- a. consumer surplus is maximized and producer surplus is minimized.
  - b. consumer surplus is minimized.
  - c. producer surplus is maximized.
  - d. the sum of consumer surplus and producer surplus is maximized.
10. Adding marginal damages to the cost of goods whose production creates negative externalities does all of the following except
- a. improve the allocation of resources.
  - b. reduce the equilibrium output.
  - c. eliminate all of the damage done by the externality.
  - d. raise the price to consumers of the goods.
11. When marginal damages are taken into account and output decreases, the result is
- a. a net gain for society with social benefits exceeding private costs.
  - b. no loss to private interests.
  - c. a private loss that is absorbed by producers in the form of reduced profits.
  - d. a net gain for society due in part to lower costs for the product.
12. All of the following statements about positive externalities are true except
- a. the private market allocates too few resources to the production of the good with the externality.
  - b. compensating the producer of a good with positive externalities for the marginal external benefit will increase the quantity of the good produced.
  - c. a producer compensated for marginal external benefit will choose a quantity where marginal social benefit equals marginal cost.
  - d. there is no additional cost when compensation for marginal external benefit leads to a change in equilibrium output.

13. The Coase theorem
- produces different resolutions of an externality depending upon to whom property rights are assigned.
  - produces the same distribution of welfare among parties without regard to whom property rights are assigned.
  - requires low transactions costs and that parties to an externality be few in number to produce a resolution.
  - requires compensation to injured parties to produce a resolution for an externality.
14. If private markets generate an efficient allocation of resources, they must also generate a “fair” distribution of utility.
- True.
  - False.
15. If the bottom quintile of a population receives a smaller share of aggregate income with the loss being spread equally among the other four quintiles as a gain, the Lorenz curve becomes
- bowed above the line of perfect equality.
  - double-bowed, rising above the line of perfect equality then dipping back below it.
  - more bowed away from the line of perfect equality.
  - less bowed away from the line of perfect equality.
16. A cash transfer for a specific good (of the same dollar value as an in-kind voucher) should have a greater positive impact on the welfare of the recipient if the transfer recipient
- wants a larger quantity of the specific good than the voucher makes available.
  - wants a smaller quantity of the specific good than the voucher makes available.
  - wants an equal quantity of the specific good than the voucher makes available.
17. Lindahl prices achieve unanimity among recipients of public goods by
- excluding each recipient from just enough of the benefits of the goods to bring amount consumed and demand into correspondence.
  - charging different prices for the same amount of public good to different individuals.
  - dividing the total cost of provisioning the public goods equally among all recipients.
  - assuring that the true preferences of free riders are discovered and they are charged accordingly.
18. Equity in taxation can be characterized according to
- Pigouvian taxes and subsidies
  - horizontal and vertical equity
  - the benefit principle and ability to pay
  - the presence of free riders.
19. Distortionary taxation will cause
- the social welfare function to shift outward (away from the origin).
  - the social welfare function to shift inward (toward the origin).
  - the utilities possibilities curve to shift inward.
  - the utility possibilities curve to shift outward.
20. Which of the public responses to negative production externalities is usually inefficient?
- Pigouvian taxes.
  - Pigouvian subsidies.
  - Command and control.
  - Cap and trade.
21. According to Arrow's Impossibility Theorem, it is not possible
- to have a democratic collective decision-making rule.
  - to make decisions concerning collective goods when some voters have double-peaked preferences.
  - for any collective decision-making rule to comply with all of Arrow's six properties of a good collective decision making rule.

- d. for collective decision making to be rational.
22. The essential feature for logrolling to be welfare-enhancing is that  
 a. voters' intensity of preferences be considered, not just their ranking.  
 b. only voters' ranking of preferences be considered.  
 c. there be a market for votes so that preferences can be measured.  
 d. there be direct democracy rather than representative democracy.
23. Commodity egalitarianism refers to commodities that  
 a. are important for most consumers.  
 b. are too dangerous for most consumers.  
 c. should be made available to all consumers.  
 d. are good ideas but never produced.
24. Charging individual prices that are based on consumers' willingness to pay is  
 a. government price supports.  
 b. no price discrimination.  
 c. second tier pricing.  
 d. price discrimination.
25. Equilibrium for public goods is characterized by  
 a.  $MSB = MSB$ .  
 b.  $\sum MRS = MRT$ .  
 c.  $MRS_1 = MRS_2 = MRS_3 = \dots = MRS_n = MRT$ .  
 d.  $MC = MB$ .  
 e.  $MRS - MRT = MSB$ .
26. Demand curves are summed horizontally for \_\_\_\_\_ goods and services and summed vertically for \_\_\_\_\_ goods and services.  
 a. price; quantity  
 b. private; public  
 c. public; private  
 d. None of these answers.
27. A Pigouvian tax corrects for  
 a. market congestion.  
 b. market losses.  
 c. inefficient sales.  
 d. low market prices.
28. Which of the following is correct?  
 a.  $SMC = PMC - MD$   
 b.  $MPB = MSB + MEB$   
 c.  $SMC = PMC + MD$   
 d.  $MSC = MPB$   
 e.  $MSB = MSC + MPB$
29. Marginal benefits are downward sloping when  
 a. there are no total benefits.  
 b. total benefits are decreasing at an increasing rate.  
 c. total benefits are increasing at a decreasing rate.  
 d. marginal costs are upward sloping.
30. A tax levied on each unit of pollution is  
 a. an income tax.  
 b. an emissions fee.

- c. a flat tax.
  - d. an international tax.
31. A cap-and-trade policy
- a. has a set number of permits.
  - b. allows polluters to trade permits.
  - c. caps the total level of pollution allowed.
  - d. all of the above.
32. With multiple-peaked preferences,
- a. a unique political equilibrium does not exist.
  - b. all individuals have a point that is most preferred.
  - c. the law of transitivity is violated.
  - d. all of the above
33. A voter chooses not to be well-informed on election issues because the marginal cost of obtaining the information exceeds its marginal benefit. This is known as
- a. rational exuberance
  - b. irrational behaviour
  - c. irrational voting
  - d. rational ignorance
34. Government bureaucrats want larger budgets
- a. because salaries are sometimes tied to budget size.
  - b. to fulfill an "empire building" tendency.
  - c. because it may be necessary to ensure marginal benefits of output equal marginal costs.
  - d. because of all of the above.
35. John and Paul own polluting factories. Using an emissions fee, the government plans to reduce total emissions from the two factories. If the marginal cost of abatement activities in Paul's factory are higher than the marginal cost of abatement activities in John's factory
- a. Paul will cut emissions in his factory more than John will in his factory.
  - b. Paul will cut emissions in his factory less than John will in his factory.
  - c. Paul and John will cut emissions in their respective factories by the same amount.
  - d. it is impossible to tell what their reaction will be to the emissions fee.

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