

ECON 102 – Principles of Microeconomics

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Final Exam

N A M E _____

Multiple Choice: Use a scantron to mark the single best answer the following questions (2% each).

1. A friend comes up to you and offers to give you a free ticket to the local professional team's baseball game that night. You decide to attend the game. It takes a total of four hours to go to the game and costs you \$10 for transportation. If you had not attended the game, you would have worked at your part-time job for an after-tax wage of \$7 an hour. What is the cost of you attending the game?

- A) \$0
- B) \$10
- C) \$28
- D) \$38

2. The publisher of an economics textbook finds that when the book's price is lowered from \$100 to \$90, sales rise from 100,000 to 120,000. You can calculate that the price elasticity of demand at the original price is:

- A) -0.50.
- B) -1.
- C) -2.
- D) Not enough information is available to answer this problem.

3. Suppose you manage a convenience mart and are in charge of ordering products but do not set the price. The home office provides the prices. In your neighborhood, the income elasticity of demand for peanut butter is -0.40. Due to local casino closings, you expect local incomes to decrease by 10%, on average, in the next month. As a result, you should:

- A) stock 4% more peanut butter on the shelves.
- B) stock 40% more peanut butter on the shelves.
- C) stock 4% less peanut butter on the shelves.
- D) stock 40% less peanut butter on the shelves.

4. You have won the lottery and have been given the choice of receiving either \$4 million today or an annuity of \$1 million now plus \$1 million more at the end of each of the next four years. Assume that the safe rate of return you could earn by saving this money remains fixed at 7% per year for the entire period. You should choose:

- A) The annuity, since it is worth \$5 million
- B) \$4 million today, since the money is worth more now than in the future.
- C) \$4 million today, since \$4 million saved at 7% for 4 years is worth more than \$5 million.
- D) The annuity, since the net present value of the five payments is greater than \$4 million.

5. The continuing war in Iraq has disrupted oil supplies, while concerns over a possible U.S. attack on Iran has led gasoline refineries to expect that oil prices will rise in the future. What would be the combined effect of these two events on the market for gasoline?

- A) an increase in the price and the quantity
- B) an increase in the price and an unpredictable change in the quantity
- C) an unpredictable change in both the price and the quantity
- D) an increase in the quantity and an unpredictable change in the price

6. If the supply curve of a product is relatively elastic and the price of a complement to a product falls, equilibrium quantity will _____ and equilibrium price will _____, but equilibrium _____ will change proportionately more.

- A) increase; increase; price
- B) decrease; decrease; price
- C) increase; increase; quantity
- D) decrease; decrease; quantity

7. If the demand curve for a product is relatively elastic and there is a fall in the price of an input used in the manufacture of the product, equilibrium quantity will _____, equilibrium price will _____, but equilibrium _____ will change proportionately more.

- A) decrease; increase; price
- B) increase; decrease; price
- C) increase; decrease; quantity
- D) decrease; increase; quantity

17. One government policy for dealing with a natural monopoly is to:
- break it up into smaller firms.
 - impose a price floor to eliminate the deadweight loss.
 - impose a price ceiling to eliminate any economic profit.
 - do all of the above.
18. Suppose the price elasticity of demand for coffee at the CoffeeBarn equals 1.71 for women and 0.55 for men. A successful price discrimination strategy would lead to:
- lower prices for men and higher prices for women, as long as the CoffeeBarn could prevent women from reselling drinks to men.
 - lower prices for men and women.
 - higher prices for men and lower prices for women, as long as the CoffeeBarn could prevent women from reselling drinks to men.
 - lower prices for men and higher prices for women.
19. Game theory is commonly used to explain behavior in oligopolies, because oligopolies are characterized by:
- interdependence.
 - large profits in the long run.
 - imperfect competition.
 - either homogenous or heterogeneous products.
20. According to the kinked-demand model of oligopolies, oligopolistic firms often choose not to compete much on:
- quantity.
 - price.
 - advertising.
 - all of the above.
21. If rival gas stations in Reno limit production and _____ prices in a way that increases their profits, without meeting with one another in a formal way, this is known as _____ collusion.
- raise, explicit
 - lower, tacit
 - raise, tacit
 - lower, explicit
22. Gary's Gas and Frank's Fuel are the only two providers of gasoline in Smalltown and decide to form a cartel. Later, Gary summarizes his pricing strategy as: "I'll cheat on the cartel because regardless of what Frank does, cheating gives me the best payoff." This is an example of a:
- irrational strategy.
 - dominant strategy.
 - tit-for-tat strategy.
 - none of the above
23. Which of the following industries is most likely to be monopolistically competitive?
- an electric utility
 - corn
 - automobiles
 - fresh bagel shops
24. The downward-sloping demand curve for a monopolistically competitive firm:
- indicates collusion among firms in the industry.
 - ensures that the firm will produce at minimum average cost in the long run.
 - eventually will become perfectly elastic as more firms enter.
 - reflects product differentiation.
25. Monopolistic competitors often hire a celebrity spokesperson to advertise their product. One explanation for why such advertising works is that:
- the fact that a firm is willing to pay the large fees associated with celebrity advertising signals consumers that it is a major company, and that it is therefore likely to have a reliable product.
 - celebrities are better informed about the relative merits of different products than the rest of us.
 - consumers assume that the celebrity has researched the product and that the claims being made on his or her behalf are true.
 - none of the above
26. Suppose a monopolistically competitive firm can increase its profits by decreasing its output. Then it must be the case that at the current output:
- price is less than average total cost.
 - marginal revenue is less than zero.
 - price is less than marginal revenue.
 - marginal revenue is less than marginal cost.

27. Suppose a monopolistically competitive firm is in long-run equilibrium. Then:
- A) marginal revenue equals marginal cost.
 - B) price equals average total cost.
 - C) price is greater than marginal cost.
 - D) all of the above are true.
28. In a Ricardian model of international trade the production possibilities frontiers are _____, indicating that the opportunity cost of increasing the production of one item relative to another _____.
- A) straight lines; decreases
 - B) convex; is constant
 - C) concave; increases
 - D) straight lines; is constant
29. In a single growing season, the country of Pastoral can raise 100 tons of beef or produce 1,000 boxes of tulips. In the same growing season, the country of Bucolic can raise 50 tons of beef or produce 750 boxes of tulips. At which of the prices below will trade occur between the two countries?
- A) One ton of beef costs 12 boxes of tulips.
 - B) One ton of beef costs 8 boxes of tulips.
 - C) One ton of beef costs 5 boxes of tulips.
 - D) One ton of beef costs 20 boxes of tulips.
30. Lower wages in China reflect _____ labor productivity in China. This means that if the United States moved high-tech industries to China, the overall cost of production would be _____ in China than in the United States.
- A) lower; lower
 - B) higher; higher
 - C) higher; lower
 - D) lower; higher
31. The effect of international trade on U.S. factor markets is:
- A) to increase the wage of highly educated workers.
 - B) to increase the wage of unskilled workers.
 - C) to decrease the wage of both highly educated workers and unskilled workers.
 - D) both a and b.
32. Many countries engage in trade protection by imposing import tariffs or quotas for at least some goods. This is because:
- A) such restrictions tend to benefit consumers without harming producers.
 - B) while such restrictions harm consumers, they benefit producers who are usually a more cohesive and politically influential group.
 - C) while such restrictions harm consumers and benefit producers, the losses to consumers are outweighed by the gains to producers.
 - D) economists have established that such restrictions are welfare improving for certain categories of goods (such as raw materials).
33. The strategy of eliminating (or almost eliminating) risks by taking a small share in many independent events or by taking advantage of the predictability associated with large numbers of independent events is known as:
- A) screening.
 - B) pooling.
 - C) floating.
 - D) specializing.
34. Amanda recently graduated from college and she has a job offer with uncertain income: there is a 70% probability that she will make \$10,000 and a 30% probability that she will make \$70,000. The expected value of Amanda's income is:
- A) \$10,000.
 - B) \$28,000.
 - C) \$40,000.
 - D) \$21,000.
35. Risk-averse individuals are willing to pay a premium that is _____ their expected claims.
- A) equal to
 - B) less than
 - C) greater than
 - D) all of the above
36. The problem of adverse selection:
- A) can result in a reduction in the gains from trade, with many potentially beneficial transactions not taking place.
 - B) occurs when sellers (who know more about the quality of what they are selling than buyers) deliberately select inferior products to sell.
 - C) is also referred to as the "lemons" problem.
 - D) all of the above.

37. Moral hazard:
- A) is a term used synonymously with “value judgment.”
 - B) occurs when incentives are distorted, because an individual knows more about his or her own actions than other people do.
 - C) refers to the questionable morality of price gouging in hazardous times (e.g., in the presence of famines, floods, etc.).
 - D) is a term used to describe the bonuses paid for particularly hazardous jobs (such as fire-fighting).
38. Given that there is general agreement that pollution is undesirable and social welfare is increased by reducing pollution, the optimal level of pollution in a society is:
- A) the level of pollution at which the marginal social cost of pollution is equal to the marginal social benefit of pollution.
 - B) zero.
 - C) that level which reduces marginal social costs of pollution to zero.
 - D) none of the above.
39. Which of the following is an example of a negative externality?
- A) unemployment in the steel industry caused by low prices of imported (external) steel
 - B) the increased risk of a traffic accident to an individual who uses a cell phone while driving
 - C) high prices for necessities such as drinking water in the aftermath of a natural disaster
 - D) the risks posed to nonsmokers due to second-hand smoke
40. An externality is said to exist when:
- A) individual actions are affected by external forces; for example, the loss of U.S. jobs due to competition from abroad is an externality.
 - B) individuals impose costs or benefits on others, but have no incentive to take these costs and benefits into account.
 - C) individual actions are affected by government policies (such as taxes) that are externally imposed on the market.
 - D) individuals impose costs or benefits on others, and the market provides incentives to take these costs and benefits into account.
41. An externality is said to be internalized:
- A) in situations in which the Coase theorem is irrelevant or cannot be applied.
 - B) when individuals successfully petition the government to ban or restrict activities that generate negative externalities.
 - C) when individuals learn to adapt to negative externalities through introspection or internal acceptance of what are viewed as unchangeable facts of life.
 - D) when individuals take external costs and benefits into account in their decision making.
42. One of the reasons community colleges receive government subsidies is that it is believed that education creates _____, and therefore without subsidies the quantity produced would be _____ the socially optimal quantity.
- | | |
|---|---|
| A) negative externalities; greater than | B) no externalities; less than |
| C) positive externalities; less than | D) positive externalities; greater than |
43. Which of the following goods best fit the characteristics of a private good?
- A) disease prevention
 - B) a professor giving a lecture in a large classroom
 - C) an ice-cream cone
 - D) fire protection
44. The free-rider problem refers to:
- A) a variation on the phrase, “There's no such thing as a free lunch,” which is replaced by, “There's no such thing as a free ride.”
 - B) a situation in which consumers have no incentive to pay for a nonexcludable good.
 - C) qualifications or “riders” that clients do not request, but which lawyers tend to include in contracts anyway at no extra charge.
 - D) the situation in the Old West when land was largely unfenced and riders had unfettered access to private range land.

For questions 45-49: Although her product is illegal, Lola Slimeball operates her drug enterprise according to the sound business practices she learned in ECON 102 (that is, before she failed her final exam, dropped out of the university, and turned to crime). She has two sets of customers, experimenters and addicts, and she has no competitors for this particular nasty drug. The demand schedules for each customer market per day are listed below. Her marginal cost per dose is \$9.99 (you may round this to \$10 in your calculations). Her fixed costs are \$1000 per day for the car with dark windows, the cellular phone, life insurance, and bribes. Assume that she makes her customers pay in ten dollar bills to reduce her carrying costs, and will not give change. (This table is for your convenience, and is not graded.)

Price	Experimenters			Addicts			Combined		
	Doses	Rev	MR	Doses	Rev	MR	Doses	Rev	MR
\$80	0	_____	_____	10	_____	_____	_____	_____	_____
\$70	4	_____	_____	12	_____	_____	_____	_____	_____
\$60	8	_____	_____	14	_____	_____	_____	_____	_____
\$50	12	_____	_____	16	_____	_____	_____	_____	_____
\$40	16	_____	_____	18	_____	_____	_____	_____	_____

45. First, assume that experimenters and addicts are unable to resell the dose to each other (say she makes them use it in front of her). What price will Lola charge experimenters per dose?

- A) \$80 B) \$70 C) \$60 D) \$50 E) \$40

46. Assuming that experimenters and addicts are unable to resell the dose to each other, what price will Lola charge addicts per dose?

- A) \$80 B) \$70 C) \$60 D) \$50 E) \$40

47. Now, assume instead that experimenters can easily resell the dose to addicts. What price will Lola charge experimenters per dose?

- A) \$80 B) \$70 C) \$60 D) \$50 E) \$40

48. Finally, assume that Lola's nasty drug is legalized and the market becomes competitive (using prices, not guns). Assuming that the fixed costs of dealers like Lola are no longer necessary, and the marginal cost per dose does not change, what price will Lola charge her customers per dose?

- A) \$60 B) \$50 C) \$40 D) \$30 E) \$10

49. How much does Lola's profit change when she is able to price discriminate?

- A) \$0 B) -\$1000 C) -\$80 D) +\$80 E) +\$1120

50. Common resources tend to be overused because:

- A) the individual marginal cost is greater than the marginal social cost.
 B) the marginal cost of allowing 1 more unit of consumption is zero.
 C) individuals tend to ignore the cost their use of the resource has on others.
 D) common resources are nonrivalrous and nonexcludable.

51. Public goods should be produced up to the point where the marginal cost of production equals:

- A) zero, which is the marginal cost of allowing another individual to consume the good.
 B) the highest marginal benefit from any individual consumer of the good.
 C) the sum of the individual marginal benefits from all consumers of that unit.
 D) the maximum price any individual is willing to pay for that unit.

52. Which of the following is an example of an artificially scarce good?

- A) diamonds because their supply is artificially restricted by monopoly producers
 B) music that is downloadable from the Internet for a fee
 C) a daily newspaper
 D) hot dogs in a sports stadium because the number of suppliers is restricted

53. Information goods like music and movies are characterized by:
- A) high marginal costs and low fixed costs.
 - B) low marginal costs and high fixed costs.
 - C) high marginal costs and high fixed costs.
 - D) low marginal costs and low fixed costs.
54. A network externality:
- A) refers to the benefits of having a large network of acquaintances in powerful positions.
 - B) exists only for transportation networks that use the “hub and spoke” system.
 - C) arises whenever the marginal benefit of a good to any one user is enhanced by the existence of other users.
 - D) includes all of the above.
55. When VCRs were first produced, two different systems were available: VHS and Betamax. VHS eventually dominated and Betamax disappeared. This was because:
- A) VHS was unambiguously the better system.
 - B) consumers chose VHS because most of the videocassettes available for rental were VHS.
 - C) consumers chose VHS because the majority of other consumers were choosing VHS.
 - D) both B and C.

BONUS: Write a brief summary of only one of the following four chapters in *The Economics of Public Issues*, by Miller, Benjamin, and North. Be sure to explain its key economic point(s) and its primary example(s). What class material or economic theory does this relate to?

- Ch. 15: Give me MP3 or Give Me Death
- Ch. 17: Coffee, Tea, or Tuition-Free?
- Ch. 25: The Trashman Cometh
- Ch. 27: Smog Merchants