

Part I: Multiple Choice (60% - 2% each). On a scantron, clearly mark the single best answer.

1. Economics focuses on the:
 - a. making of money in the stock market.
 - b. distribution of income among individuals.
 - c. impact that government has on the private sector.
 - d. study of individuals making choices within the limits of scarcity.
 - e. ways that producers can earn a profit from selling goods on a market.

2. When resources are limited but wants are unlimited, individuals must:
 - a. choose only those goods they really need.
 - b. make choices among available alternatives.
 - c. put the public interest before self-interest.
 - d. reduce their expectations.
 - e. become more self-sufficient.

3. Adam Smith's concept of the invisible hand refers to his belief that:
 - a. individuals' pursuit of self-interest leads to market failure.
 - b. the self-interest of individuals is best promoted when governments pursue the public interest.
 - c. the public interest is best promoted when individuals pursue their own self-interest.
 - d. self-interest can lead to a "prisoner's dilemma" where everyone is worse off than before.
 - e. market failure is a myth.

4. The concept of economic efficiency focuses primarily on:
 - a. maximizing output.
 - b. minimizing monetary costs.
 - c. maximizing revenues.
 - d. short-term gains.
 - e. producing the maximum output value from available resources.

5. Firms are primarily ___ in the product market, ___ in the labor market, and ___ in the capital market.
 - a. sellers, buyers, borrowers
 - b. sellers, producers, borrowers
 - c. buyers, sellers, lenders
 - d. sellers, lenders, sellers

6. A nation must sacrifice some of the output of some goods in order to produce more of other goods during a given period of time unless:
 - a. the most efficient technologies are being used.
 - b. resources are inefficiently utilized.
 - c. there is full employment of resources.
 - d. a nation specializes in consumer goods production.

7. _____ makes statements of causation that can be tested against observable events, whereas _____ is more likely to make statements based on ethical considerations.
 - a. positive analysis/normative analysis
 - b. macroeconomics/microeconomics
 - c. a theory/an hypothesis
 - d. normative analysis/positive analysis

8. Last year Mike could grow 300 bushels of corn or 250 bushels of wheat on each hectare of land that he farmed. Over the winter, he discovered a new hybrid corn seed that will allow him to increase the amount of corn he can grow on each hectare. How has Mike's opportunity cost of growing wheat changed with this discovery?

- a. The opportunity cost of a bushel of wheat has decreased.
- b. The opportunity cost of a bushel of wheat has increased.
- c. The opportunity cost stays the same because the discovery will let Mike produce more of both goods.
- d. The opportunity cost stays the same because the amount of wheat Mike can produce is unchanged.

9. Individuals or countries trade with each other because they:

- a. would prefer not to be self-sufficient.
- b. would prefer not to produce their own goods.
- c. are concerned with increasing society's welfare.
- d. cannot consume all they produce.
- e. expect to gain as a result of the trade.

10. When a production possibilities frontier is bowed out, away from the origin, the opportunity cost of a good:

- a. Falls as the quantity of this good increases.
- b. Stays the same at all quantities of the good.
- c. Increases as the quantity of this good increases.
- d. Becomes increasingly negative.

11. Which of the following will not cause a change in demand?

- a. Change in income.
- b. Change in the good's own price.
- c. Change in the number of buyers.
- d. Change in the price of related goods, such as complements and substitutes.
- e. Change in expectations of future prices.

12. If two goods are complements and the price of one good decreases, then the demand for the other will

- a. increase.
- b. decrease.
- c. not be affected.
- d. not change, but quantity-demanded will fall.
- e. not change, but quantity-demanded will rise.

For questions 13 and 14, consider the market for legal pharmaceutical drugs in a large city. Assume that these prescribed drugs are normal goods and the price elasticity of demand for drugs is 0.60.

13. Suppose the wage for pharmacists' labor goes up. The equilibrium price is expected to _____, the equilibrium quantity is expected to _____, and total consumer expenditures on drugs are expected to _____.

- a. increase; decrease; decrease
- b. decrease; decrease; decrease
- c. increase; decrease; increase
- d. decrease; increase; increase

14. Suppose instead that consumer income falls. The equilibrium price is expected to _____, the equilibrium quantity is expected to _____, and total consumer expenditures on drugs are expected to _____.

- a. increase; decrease; decrease
- b. decrease; decrease; decrease
- c. increase; decrease; increase
- d. increase; increase; increase

15. When the forces of supply and demand operate freely, the effects of a drought on the corn harvest will be indicated in the market by:
- an increase in the price of corn.
 - government-imposed limits on individuals' purchases of corn.
 - advertisements in the newspapers advising people to reduce consumption of corn.
 - a reduction in the price of corn.
16. If a 5% decrease in consumer income leads to a 4% increase in the sales of Macaroni & Cheese, then we know that:
- The demand for Macaroni & Cheese is price inelastic.
 - The supply of Macaroni & Cheese is price inelastic.
 - Macaroni & Cheese is a normal good.
 - Macaroni & Cheese is an inferior good.
17. Market equilibrium occurs when:
- the forces of supply and demand oppose each other.
 - scarcity is eliminated.
 - a market price just equates quantity-demanded and quantity-supplied.
 - a market price just equates demand and quantity.
18. What will likely happen to market price and quantity of a good if technological improvements occur simultaneously with an increase in the price of a substitute good?
- Market price will fall, but market quantity is indeterminate.
 - Market quantity will rise, but market price is indeterminate.
 - Both market price and market quantity will fall.
 - Market price will fall and market quantity will rise.
 - Both market price and market quantity are indeterminate.
19. Moving from the upper range of a linear demand curve southeast to the lower portions is associated with a price elasticity that:
- becomes increasingly elastic.
 - becomes increasingly inelastic.
 - remains constant.
 - is inelastic.
20. Which of the following terms represents total benefits received in excess of the dollar expenditure necessary to obtain goods?
- | | |
|---------------------------|-----------------|
| a. net utility | b. market value |
| c. consumer surplus value | d. profit |
21. If government wants to maximize the revenue from a tax, it should levy taxes on products where demand is:
- | | |
|---------------------|--------------|
| a. unit elastic | b. elastic |
| c. downward-sloping | d. inelastic |
22. A price below the market equilibrium price results in:
- | | |
|-------------------------|----------------|
| a. a surplus. | b. a shortage. |
| c. insufficient demand. | d. scarcity. |
23. In a day, Steve can mow 6 lawns or bake 180 cookies. The opportunity cost of a cookie for Steve is:
- | | |
|----------------------|-----------------------|
| a. 180 lawns. | b. 30 lawns. |
| c. 1/30th of a lawn. | d. 1/180th of a lawn. |

24. Suppose government imposes a tax on a specific type of market transaction, such as the sale of an automobile. Buyers will pay relatively more of the tax if:
- a sales tax is charged to the consumer, instead of a tax on the seller.
 - demand is relatively more elastic than supply.
 - both supply and demand are more elastic.
 - both supply and demand are less elastic.
 - supply is relatively more elastic than demand.
25. Suppose government imposes a tax on a specific type of market transaction, such as the sale of an automobile. The deadweight loss from the tax will:
- rise proportionately with the tax.
 - rise more than proportionately with the tax.
 - rise to a maximum, and then fall as the tax keeps rising.
 - rise with the tax, but at a decreasing rate.
26. With a market system, rationing is accomplished through:
- a system of prices.
 - a system of waiting lines.
 - a political process.
 - random selection.
 - a lottery.
27. You are an executive earning an annual income of \$80,000. You are considering quitting your job and returning to college to complete a degree. You estimate that the cost of tuition and books will be \$10,000 for the year. The opportunity cost of completing your education:
- is your foregone salary.
 - includes tuition, books, and the equivalent cost of room and board.
 - is the cost of tuition and books only.
 - includes tuition, books, and foregone after-tax salary, but not the cost of maintaining a home.
 - is a cost larger than tuition and books, because transportation cost need to be included.
28. Suppose that you put \$100 in an interest-earning note with a maturity of three years with the interest compounded annually and an interest rate of 7 percent. At the end of three years the \$100 will be worth:
- | | |
|--------------|--------------|
| a. \$121.00. | b. \$122.50. |
| c. \$107.00. | d. \$ 81.63. |
| e. \$170.00. | |
29. The Cozy Chair Company can sell 10 chairs per day at \$200 per chair, or 20 chairs at \$150 per chair. Using the midpoint formula, you can calculate that the price elasticity of demand (to the nearest tenth) for Cozy Chairs is:
- | | | | |
|----|------|----|------|
| a. | 0.2. | | |
| b. | 1.5 | c. | 2.3. |
| | d. | | 4.0. |
30. Suppose that the price of a product increases from \$5.00 to \$5.50 and as a result the quantity demanded declines from 200 to 160. Based upon this information, we would conclude that the demand for this product in this price range:
- | | | | |
|----|----------------|----|------------------|
| a. | is inelastic. | b. | is unit elastic. |
| c. | is elastic. | d. | has declined. |
| e. | has increased. | | |

Part II: Problems, Graphs, and Short Answers (40%)

1. (20%) Katherine Harrigan and her daughter Molly have formed a two-person legal firm to handle wills (which you can call W for short) and divorces (call them D). The senior Ms. Harrigan can typically complete three wills in a day, or two divorces. Molly can typically complete two wills per day, or one divorce. They each work five days per week.

a. (7%) Carefully graph (separately) each of their individual production possibilities frontiers for a typical five-day week, putting wills on the horizontal axis. What is the opportunity cost of completing a will for each?

b. (4%) Assume they both spend two days per week on wills, and three days on divorces. Show these combinations on your graphs above. If their fees are \$150 for a will and \$250 for a divorce, what is the combined revenue per week for their law firm?

c. (4%) Who has the absolute advantage in each service? Who has the comparative advantage in each?

d. (5%) Molly now rediscovers her old economics textbook from college, and decides to suggest a more efficient method of allocating work to her mother. What should she suggest, and by how much could she increase their weekly revenue?

2. (10%) Assume the supply of Indian casino gaming is relatively elastic, demand is inelastic, and the market is perfectly competitive.

a. Draw a supply-and-demand graph to show the market equilibrium, and also label both consumer surplus and producer surplus. At what quantity is the net surplus maximized?

b. Now suppose that Congress is considering a tax on Indian gaming. On your graph, show the effect of the tax on this market. On your graph, show what happens to the quantity of Indian gaming (in hours of gambling), the price paid by gamblers (calculated as the expected loss per hour), and the price received by casinos (the expected after-tax win per gambler-hour). Then label the amount of tax collected, the changes in consumer surplus and producer surplus, and the deadweight loss. Who pays most of the tax, the gamblers or the casinos?

3. (4%) Suppose that a trip to Reno is a substitute for a trip to an Indian reservation. What effect would an Indian gaming tax have on the market for gaming in Reno? Use a graph with your explanation.

4. (6%) Suppose that Congress decides to outlaw casino gambling . How would the market strike back? What would be the predictable consequences of making this (or any) market illegal?

Bonus Question (10%). Continue answer on the back of this page if necessary.

B1. Suppose a firm is considering buying a machine for \$15,000 that will save them \$5000 in labor costs for three years. The machine must be paid for now, while the labor savings come at the end of the first, second, and third years. At the end of three years, the machine can be sold for a scrap value of \$3000. If the firm is able to earn 10% per year on investments of similar riskiness, what is the net present value of the investment? Would the firm make the investment? What about if the firm's opportunity cost of capital falls to 8%? Show and explain your calculation.

B2. Suppose you buy \$1000 in stock shares now and plan to sell them next year. You figure that there is a 30% chance you can sell them for \$600, a 30% chance you can get the \$1000 you paid, and a 40% that you sell them for \$1500. What is your expected selling price of the stock next year? As a percentage of your \$1000, how much, on average, will you earn on these shares? If you could have earned 4% on a risk-free savings account, how much more are you making for taking this risk?