

2007 NATIONAL ECONOMICS CHALLENGE
NCEE/Goldman Sachs Foundation

National Round I: Microeconomics
David Ricardo Division

1. If your income tax liability is \$15,000 and your income is \$60,000, your
 - A. average tax rate is 20 percent.
 - B. marginal tax rate is 20 percent.
 - C. average tax rate is 25 percent.
 - D. marginal tax rate is 25 percent.
 - E. additional alternative minimum tax obligation will be no less than \$5000.

2. Since the early 1970s, the U.S. income distribution
 - A. has steadily become more equal from year to year as a larger share of the population has graduated with a high school degree.
 - B. has steadily become more equal from year to year as female labor force participation rates have increased.
 - C. has basically remained unchanged.
 - D. has become more unequal in part because the earnings gap between highly skilled workers and unskilled workers has widened.
 - E. has become more unequal because welfare programs have become more generous.

3. In which way does a concave production possibilities curve differ from a straight-line production possibilities curve?
 - A. A concave production possibilities curve has decreasing opportunity cost.
 - B. A concave production possibilities curve has constant opportunity cost.
 - C. A concave production possibilities curve has increasing opportunity cost.
 - D. A concave production possibilities curve does not show opportunity cost.
 - E. There is no difference between the two production possibilities curves.

4. During the 1980s, the price of handheld calculators fell by 75% and quantity sold decreased by the same percentage. The demand for handheld calculators must
 - A. be inelastic.
 - B. be unit elastic.
 - C. be elastic.
 - D. have increased.
 - E. have decreased.

5. Assume that coal is a normal good. If the price of coal increases and the quantity sold increases, which of the following is consistent with these observations?
 - A. The price of oil increased, oil and coal being substitutes.
 - B. New regulations are imposed on the coal mining industry.
 - C. New machinery made coal mining more efficient.
 - D. Consumers' incomes fell.
 - E. The demand curve is upward sloping.

6. Average total costs will decrease with additional production whenever
 - A. marginal costs are less than average total cost.
 - B. marginal costs are falling.
 - C. marginal costs are rising.
 - D. marginal costs are greater than average variable cost.
 - E. average fixed costs are negative.

7. A research study published in a prominent medical journal confirms that eating an apple each day for 40 years expands life expectancies by an average of five years. What effect will this finding have on the market price of apples and producer surplus in the apple market?
 - A. Apple prices will fall and producer surplus will decrease.
 - B. Apple prices will fall and producer surplus will increase.
 - C. Apple prices will rise and producer surplus will decrease.
 - D. Apple prices will rise and producer surplus will increase.
 - E. Apple prices will rise, but producer surplus will remain unchanged.

8. Which of the following distinguishes a monopolistically competitive firm from a perfectly competitive firm?
- A. The monopolistically competitive firm faces a downward sloping demand curve for its product, which is not the case for the perfect competitor.
 - B. Price equals marginal revenue for the monopolistically competitive firm, but not the perfect competitor.
 - C. The perfect competitor will find it advantageous to advertise and the monopolistic competitor will not.
 - D. Unlike the perfect competitor, the monopolistic competitor has no hope to earn positive economic profits.
 - E. The profit maximizing monopolistic competitor will produce where $MC=MR$, but the perfect competitor will not.
9. Which of the following is true of monopolies who practice price discrimination?
- A. They charge all customers the same price.
 - B. They earn a smaller profit than those who do not practice price discrimination.
 - C. They charge customers different prices according to different price elasticities of demand.
 - D. They produce lower quantities than pure monopolists.
 - E. They produce the same quantity of output as pure monopolists.
10. A neighborhood metal fabricating firm is responsible for creating noise pollution that interferes with the sleeping patterns of neighborhood residents. An efficient solution to this economic problem would be to:
- A. Have the city government pay to relocate neighborhood residents.
 - B. Levy a tax on the polluting firm in an amount equal to the lost value of sleep experienced by neighborhood residents.
 - C. Install a monitoring device at the firm that automatically shuts down production when the volume of noise reaches a certain level.
 - D. Ban the firm's production.
 - E. Require the firm to install less noisy equipment.

11. Which of the following economic goods is most likely to have a high total utility, but a low marginal utility?
- A. Water
 - B. Pollution
 - C. Personal computers
 - D. Cell phones
 - E. Park visits
12. If a perfectly competitive firm is earning zero economic profit,
- A. it is earning a normal rate of return.
 - B. it should shut down and wait until market conditions improve.
 - C. it should increase its price to increase profits.
 - D. it should expect to earn positive economic profits in the short run.
 - E. it must also be experiencing accounting losses.
13. An income reduction of 15% causes Lileth to increase purchases of ground beef by 10%. Which of the following statements is most likely to be correct?
- A. The price elasticity of demand for ground beef is $-2/3$ and ground beef is a normal good.
 - B. The price elasticity of demand for ground beef is -1.5 and ground beef is a normal good.
 - C. The price elasticity of demand for ground beef is $-2/3$ and ground beef is an inferior good.
 - D. The price elasticity of demand for ground beef is -1.5 and ground beef is an inferior good.
 - E. The income elasticity of demand for ground beef is $-2/3$ and ground beef is an inferior good.

14. The demand for halibut decreases and halibut suppliers begin experiencing economic losses. Assume the halibut industry is perfectly competitive. Compared to this new situation, in the long run how are the price of halibut and economic profits for halibut suppliers likely to change?

	<u>Price</u>	<u>Economic Profits</u>
A.	Increase	Decrease
B.	Increase	Increase
C.	Will not change	Will not change
D.	Decrease	Decrease
E.	Decrease	Increase

15. Suppose that a tax is placed on cigarettes. If the buyer of cigarettes bears the majority of the burden of the tax, then we know that

- A. the supply curve is more inelastic than the demand curve.
- B. the supply curve is more elastic than the demand curve.
- C. the government has levied the tax on the seller.
- D. the government has levied the tax on the buyer.
- E. government revenue from the tax will increase substantially.