

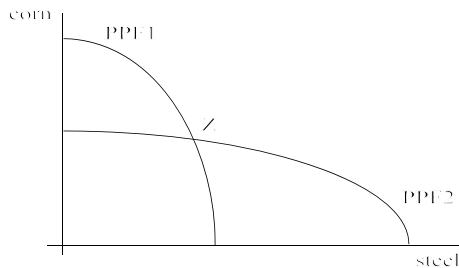
I. Multiple Choice (2 points each)

1. Deriving a PPF for an economy requires the assumption that

- A. the level of technology is held constant.
- B. the level of available resources is held constant.
- C.* Both A and B are necessary in deriving a PPF.
- D. Neither A nor B is necessary in deriving a PPF.

2. In the figure shown below, at point Z, PPF1 shows

- A. a higher opportunity cost of increasing corn production than PPF2.
- B.* a lower opportunity cost of increasing corn production than PPF2.
- C. the same opportunity cost of increasing corn production as PPF2.



3. Assume there are two possible actions, A and B. If the O.C. per unit of increasing action A is decreasing, then the O.C. per unit of increasing action B is

- A.* decreasing.
- B. increasing.
- C. negative.
- D. zero.

4. Assume the per unit opportunity cost of increasing your grades (in terms of hours of leisure) is .20? This implies that a

- A.* 5 point increase in your grades will cost you 1 hour of leisure.
- B. one hour increase in leisure will lead to a 20% decrease in your grades.
- C. 20 minute increase in leisure will lead to a 1 point decrease in your grades.
- D. 1 point increase in your grades will cost you 1 hour of leisure.

5. If the O.C. of producing cars in Brazil is 50 computers per car and the O.C. of producing cars in the U.S. is 100 computers per car, a feasible trade between Brazil and the U.S. is
- Brazil selling computers to the U.S. for 70 cars per computer.
 - Brazil selling computers to the U.S. for 35 cars per computer.
 - * Brazil selling cars to the U.S. for 80 computers per car.
 - Brazil selling cars to the U.S. for 15 computers per car.
6. Suppose Arizona can produce grapefruit at an opportunity cost of .3 oranges for each grapefruit that is produced. Suppose Florida can produce grapefruit at an opportunity cost of .5 oranges for each grapefruit that is produced. Using only this information, a feasible terms of trade between the Florida and Arizona would be
- Florida ships grapefruit to Arizona at a price of .4 oranges for each grapefruit.
 - Florida ships grapefruit to Arizona at a price of .2 oranges for each grapefruit.
 - Florida ships oranges to Arizona at a price of .7 grapefruit for each orange.
 - * Florida ships oranges to Arizona at a price of 2.5 grapefruits for each orange.
7. If Jim's O.C. per unit of making cookies is 3 beers, and Joe's O.C. per unit of making cookies is 6 beers, which of the following statements is correct regarding a trading price for cookies (P_c)?
- $1/3 \text{ beers} < P_c < 3 \text{ beers}$
 - $1/6 \text{ beers} < P_c < 6 \text{ beers}$
 - * $3 \text{ beers} < P_c < 6 \text{ beers}$
 - $1/6 \text{ beers} < P_c < 1/3 \text{ beers}$
8. The demand for good x per month
- is the amount of good x buyers buy per month.
 - is reduced when the price of good x increases.
 - Both of the above would be true statements regarding the concept of demand.
 - * Neither of the above would be true statements regarding the concept of demand.
9. Which of the following statements is FALSE?
- Increases in demand correspond to increases in buyers' limit prices.
 - If supply increases, the supply curve shifts downward.
 - Increased opportunity costs of production decrease supply.
 - * A shortage leads to an increase in demand.
10. Which of the following statements correctly represents a **change in demand**?
- Recent increases in the supply of shares of IBM stock have led to a reduction in the price per share leading to an increase in demand for IBM stock.
 - * Because of recent increases in the price of gasoline, consumers have increased their demand for more gas efficient cars.
 - The recent 1% increase in interest rates on mortgage loans has led to a decrease in demand for mortgage loans.
 - All of the above statements represent a change in demand.

11. Assume automobile tires and gasoline are complements. A decrease in the price of crude oil used in manufacturing gasoline will result in an
- A. increase in the supply of gasoline and a decrease in the supply of tires.
 - B. increase in the demand for gasoline and tires.
 - C. increase in the supply of tires and an increase in the demand for gasoline.
 - D.* increase in the supply of gasoline and an increase in the demand for tires.
12. Last May, owners of CBQ stock were willing to offer for sale up to 8,000 shares at a price of \$50.00 per share. Now they are willing to offer up to 20,000 shares at \$50.00 per share. One would say that there has been
- A. a decrease in demand.
 - B. a decrease in supply.
 - C. an increase in demand.
 - D.* an increase in supply.
13. At times, we observe market situations where the quantity sold increases at the same time the market price is increasing. The explanation of this phenomena is
- A. an increase in supply.
 - B.* an increase in demand.
 - C. a decrease in demand.
 - D. a decrease in supply.
14. Assume mathematicians can either teach math, work for private firms, or work for the government. Holding all other factors constant, an increase in demand for mathematicians by the government and private sector would be expected to
- A. decrease the demand for math teachers.
 - B.* decrease the supply of math teachers.
 - C. decrease the opportunity cost of being a math teacher.
 - D. All of the above are true.
15. If good Y is a substitute for good X, an increase in the cost of producing Y results in
- A. a decrease in demand for Y and X.
 - B. a decrease in the demand for Y and a movement downward along the demand curve for X.
 - C. a movement upward along the demand curve for Y and a decrease in the demand for X.
 - D.* a movement upward along the demand curve for Y and an increase in the demand for X.
16. A significant increase in the minimum wage employers must pay in the fast food industry and increasing unemployment in the economy would have what affect on the fast food industry? Assume fast food is an inferior good.
- A. Increase in P_e and Q_e .
 - B. Decrease in P_e and Q_e .
 - C.* Increase in P_e and an indeterminate affect on Q_e .
 - D. An determinate affect on P_e and an increase in Q_e .

17. Assume the imposition of a binding import quota on European cars imported into the U.S. The impact on the market for cars made in the U.S. would be
- A. an increase in demand and increase in supply.
 - B.* an increase in demand and increase quantity supplied.
 - C. a movement up the demand curve and the supply curve.
 - D. a movement up the demand curve and down the supply curve.
18. Which of the following statements about price elasticity of demand is **TRUE**?
- A. If there is a decrease in supply, the quantity demanded will not change if price elasticity of demand is 1.
 - B. The longer the time period considered, the lower the price elasticity of demand is expected to be.
 - C. The price elasticity of demand for Bud Light beer at Osco is likely to be less than the price elasticity of demand for all brands of beer in Bloomington.
 - D.* Goods that comprise a very small percentage of a household's total expenditures tend to have a relatively low price elasticity of demand.
19. Which of the following statements about price elasticity of demand is **FALSE**?
- *A. If there is an increase in a tax on the sellers of a product, the quantity demanded will not change if price elasticity of demand is 1.
 - B. The longer the time period considered, the higher the price elasticity of demand.
 - C. The price elasticity of demand for soda is likely to be smaller than the price elasticity demand for a particular brand of soda.
 - D. Goods that comprise a very small percentage of a household's total expenditures tend to have a relatively low price elasticity of demand.
20. If a person spends \$25 each week on movie rentals (regardless of the price of an individual movie rental), one can conclude that for movie rentals this person has an
- A. elasticity of demand = 0.
 - *B. elasticity of demand = 1.
 - C. elasticity of demand which is infinite.
 - D. none of the above answers is correct.
21. The fact that the demand for food is price inelastic suggests that
- A.* high yield years in farming will lead to relatively large reductions in price compared to increases in quantity sold and reductions in farm revenues.
 - B. high yield years in farming will lead to relatively small reductions in price compared to increases in quantity sold and increases in farm revenues.
 - C. low yield years in farming will lead to relatively large increases in prices compared to reductions in quantity sold and decreases in farm revenues.
 - D. low yield years in farming will lead to relatively small increases in prices compared to reductions in quantity sold and increases in farm revenues.

22. Which of the following statements regarding the expected effects of a price control in a competitive market is **TRUE**?
- A. A price floor above the equilibrium price will generate a decrease in demand and an increase in supply.
 - B. A price floor below the equilibrium price will generate a decrease in quantity exchanged in comparison to the equilibrium quantity.
 - C. A price floor above the equilibrium price will generate a decrease in quantity supplied.
 - D.* A price floor above the equilibrium price will generate a smaller quantity exchanged than equilibrium quantity.
23. There is often a debate on the benefits and costs of increasing a binding minimum wage. Proponents of the law argue that an increase would have very little impact on unemployment. Their argument would be the strongest if
- A. demand and supply of labor are highly elastic.
 - B.* demand and supply of labor are highly inelastic.
 - C. there are only small reductions in the demand for labor when the wage is increased.
 - D. there are only small increases in the supply of new workers when the wage is increased.
24. The supply elasticity is smaller when
- A. the demand elasticity is smaller.
 - *B. the inputs into making the good have a low elasticity of supply.
 - C. consumer expenditures on the good are a large part of consumer budgets.
 - D. the time period under consideration is very long.
25. Assume the equilibrium price and quantity of a 12-pack of beer is \$5 and 1,000 respectively. If supply increases, which of the following new equilibrium price-quantity pairs would be consistent with an **elastic** demand for beer?
- A. \$5.25 and 2,500.
 - *B. \$4.50 and 2,000.
 - C. \$4.50 and 1,050.
 - D. \$4.00 and 1,000.
26. The utility maximizing principle of consumer behavior suggests that consumers will make purchase decisions based on comparing the
- A. the marginal cost of each good.
 - B. total utility of all goods.
 - C.* additional utility per dollar spent on each good.
 - D. rate of diminishing total utility from successive units of a given good.
27. If the marginal utility of good X is $\frac{1}{4}$ the marginal utility of good Y, and the consumer is maximizing utility, we know that
- A. the price of X must be 4 times the price of Y.
 - B. the TU from X must be $\frac{1}{4}$ that of Y.
 - C.* the price of X must be $\frac{1}{4}$ the price of Y.
 - D. the TU from X must be 4 times that of Y.

28. The theory behind short run production costs can be narrowed to an assumption that MC is expected to initially fall, but rise at larger levels of output. This assumption follows from
- A. the law of diminishing returns to fixed inputs.
 - B.* the law of diminishing returns to variable inputs.
 - C. the concept of diseconomies of scale.
 - D. the concept of diminishing marginal utility.
29. Assume at $Q = 10$, a firm faces a $MC = \$100$, an $ATC = \$100$, and an $AVC = \$70$.
- Using this information,
- A. total costs equal \$1,000 and fixed costs equal \$30.
 - B.* total costs equal \$1,000 and fixed costs equal \$300.
 - C. total costs equal \$300 and fixed costs equal \$30.
 - D. total costs equal \$2,000 and fixed costs equal \$300.
30. Assume that a firm is producing 50 units of output and finds that the **marginal cost of the 50th unit is \$10**. From this information, we can conclude
- A. that total cost are \$500.
 - B. that total variable cost are \$500.
 - C. that total fixed costs are \$500.
 - D.* None of the above conclusions can be drawn from this information.
31. Suppose at an output of 50, $ATC = \text{Average Revenue}$. At all other levels of output, ATC exceeds average revenue. At $Q=50$, the firm
- A. is making zero economic profits.
 - B. is making positive IRS profits.
 - C. is maximizing profits.
 - D.* All of the above are TRUE.
32. A perfectly competitive firm is producing 1,000 units of output per week in a market where the market price is \$50 per unit. At this output level, $TC = \$40,000$ and $TVC = \$30,000$. The firm is currently producing a level of output where MC is \$70. This output level maximizes the difference between market price and MC . Assuming this firm wants to maximize total profits, we can conclude that
- A. this firm should increase output.
 - B.* this firm should decrease output.
 - C. this firm should shut down.
 - D. this firm is producing the output level that maximizes profits.

33. A single price monopoly is producing an output level of 100 units where $MC = \$5$ and $MR = \$2$. At this output, $ATC = \$8$, $AVC = \$6$, and consumers' limit price is $\$7$. This firm should
- increase output and lower price.
 - decrease output and lower price.
 - increase output and increase price.
 - * decrease output and increase price.
34. Suppose production by firms in a perfectly competitive industry impose a **positive externality** on those living in the same geographical region. Which of the following statements is correct?
- The supply curves of the firms understate true costs, and the government should place a per unit tax on the output of the firms.
 - The supply curves of the firms overstate true costs, and the government should place a per unit tax on the output of the firms.
 - The supply curves of the firms understate true costs, and the government should place a per unit subsidy on the output of the firms.
 - * The supply curves of the firms overstate true costs, and the government should place a per unit subsidy on the output of the firms.
35. Which of the following would be **least** representative of an externality?
- * tar from cigarettes left in smokers' lungs
 - smoke from cigarettes
 - increased incidence of cancer for non-smokers living with smokers
 - increased forest fires caused by smokers
36. Public goods differ from common pool resources in that
- public goods are provided by the government.
 - common pool resources are not "man made."
 - * public goods are non-rivalrous in consumption.
 - public goods are non-excludable in consumption.
 - All of the above are correct answers.
37. Which of the following best represents a common-pool resource?
- an education from IU
 - a hamburger from Nicks
 - * salmon in the northern pacific
 - the state of Hawaii

38. An example of market failure is
- A. firms exit due to losses.
 - B.* firms do not account for externalities.
 - C. governments can do a better job of allocating resources
 - D. All of the above refer to market failure.
39. A single price monopolist is said to underproduce relative to the social optimum because they
- A.* produce where $P > MC$.
 - B. they ignore externalities.
 - C. make excess profits.
 - D. All of the above are true.
40. Relative to a single price monopolist, perfect price discrimination leads to
- A. greater combined total producer and consumer surplus.
 - B. less consumer surplus.
 - C.* Both A and B are true.

II. Short Essay - USE ONLY THE SPACE PROVIDED. YOUR ANSWER WILL BE GRADED ON CORRECTNESS, ORGANIZATION, CLARITY, AND NEATNESS.

A. Short Answer, fill in the blanks (1 point each)

1. Opportunity costs are assumed to increase as greater amounts of a given action are chosen because HETEROGENOUS OR SPECIALIZED INPUTS.
2. Long run average costs are assumed to eventually increase due to an assumption of DISECONOMIES OF SCALE (INCREASING MC ALSO ACCEPTED).
3. If the elasticity of demand is one, an increase in supply will lead to NO CHANGE total consumer spending.
4. If a single price monopolist faces a negative marginal revenue for additional output, we know that at that output level the demand for the monopolist's product is INELASTIC.
5. TVC can be calculated from MC by SUMMING MC.
6. Negative externalities in consumption imply that the demand curve for private producers will OVERSTATE value to society.
7. A price ceiling imposed above market equilibrium price in a competitive market will lead to NO CHANGE in equilibrium price and quantity.
8. Public goods are expected to be underprovided in society due to having the qualities of a) NON-EXCLUDABILITY and b) NON-RIVALRY.

B. Evaluate the following statements stating whether they are true or false and why. Although not necessary, you may choose to use an example or graph to support your answer.

1. (3 Points) If demand for gasoline were perfectly inelastic, a decrease in excise taxes on gasoline would not affect the price of gasoline.

FALSE - SUPPLY CHANGES BY THE AMOUNT OF THE TAX AND THE PRICE FALLS BY THE FULL AMOUNT OF THE TAX

2. (3 Points) Imposing a binding price ceiling on apartment rentals would create an increase in demand for the rental units.

FALSE - QUANTITY DEMANDED INCREASES

3. (3 Points) If MR is zero for a single price monopolist, demand is unitary elastic.

TRUE - IF P DECREASES AND THE CHANGE IN TOTAL REVENUE IS ZERO THEN DEMAND MUST BE UNITARY ELASTIC.

4. (3 Points) Increasing the opportunity costs for a firm will not affect its profit maximizing output.

FALSE - INCREASE IN O.C. WILL CHANGE TVC, WHICH WILL CHANGE MC, WHICH WILL CHANGE THE OPTIMAL OUTPUT.