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MULTIPLE CHOICE.  Choose the one alternative that best completes the statement or answers the question. Each correct answer gives you 1 pt.

1) One of its most basic economic problems is that society                                             1) _____
    A)  must decide how to lower a product price.
    B)  has more products available than it needs.
    C)  must decide how to allocate available resources.
    D)  has more resources available than it needs.

2) Households are on the _____ side of input (factor) markets and on the _____ side of output     2) _____
   (product) markets.
    A)  demand; demand               B)  supply; supply
    C)  supply; demand               D)  demand; supply

3) You spent a total of $5 buying songs for your MP3 player. After you buy one more song, your total    3) _____
   cost rises to $6. The marginal cost of the last song that you bought is _____.
    A)  $0.50          B)  $1.00          C)  $5.00          D)  $6.00

4) The concept of opportunity cost                                                                     4) _____
    A)  refers only to actual payments and incomes.
    B)  is relevant only to economics.
    C)  can be applied to the analysis of any decision-making process.
    D)  applies to consumers but not to firms.

5) Opportunity cost is                                                                                 5) _____
    A)  the additional cost of buying an additional unit of a product.
    B)  that which we forgo, or give up, when we make a choice or a decision.
    C)  the additional cost of producing an additional unit of output.
    D)  a cost that cannot be avoided, regardless of what is done in the future.

6) The _____ is NOT an opportunity cost of attending college.                                       6) _____
    A)  alternative uses of the time you spend studying
    B)  tuition you pay
    C)  cost of the food that you consume while you are attending college
    D)  income you could have earned if you didn't attend college

7) Which of the following is held constant along the demand curve?                                     7) _____
    A)  Quantity               B)  Price of the good
    C)  Income                D)  Both A and B

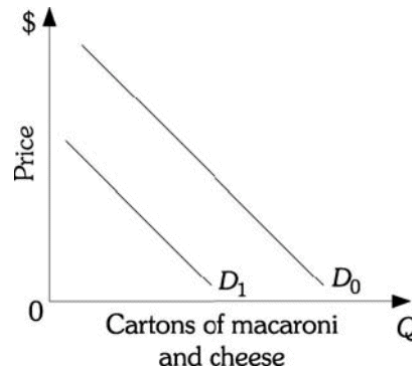*Refer to the information provided in Figure 3.2 below to answer the questions that follow.*



Figure 3.2

8) Refer to Figure 3.2. A decrease in _____ would most likely cause the demand for macaroni and cheese to shift from $D_0$ to $D_1$?
    A) the price of flour used to make macaroni and cheese
    B) the price of macaroni and cheese
    C) income, assuming macaroni and cheese is a normal good
    D) the quantity demanded for macaroni and cheese

8) _____

9) For inferior goods, an increase in income will cause the
    A) demand to decrease.               B) demand to increase.
    C) quantity demanded to increase.     D) quantity demanded to fall.

9) _____

10) The price of computer chips used in the manufacturing of personal computers rises. This will lead to a(n) _____ in the _____ of personal computers.
    A) increase; quantity supplied        B) decrease; supply
    C) increase; supply                D) decrease; quantity supplied

10) _____

11) Equilibrium is the condition that exists when
    A) quantity demanded equals quantity supplied.
    B) there is no government intervention in the market.
    C) the demand curve intersects the price axis.
    D) the demand curve intersects the quantity axis.

11) _____

12) If the price of pizza sauce rises, there will be a(n) _____ of pizza.
    A) increase in the quantity supplied    B) decrease in the supply
    C) decrease in the quantity supplied   D) increase in the supply

12) _____

13) The "law of demand" implies that as prices _____ increases.
    A) fall, demand               B) rise, quantity demanded
    C) fall, quantity demanded     D) rise, demand

13) _____

14) As an individual consumes more of a product within a given period of time, it is likely that each    14) _____
additional unit consumed will yield
    A) successively less satisfaction.
    B) the same amount of satisfaction.
    C) successively more satisfaction.
    D) less satisfaction for a while and then start to add more satisfaction.

15) Which of the following explains the law of demand?    15) _____
    A) A tastes and preferences effect
    B) The law of diminishing marginal utility
    C) A normal versus inferior good effect
    D) The law of output increasing at a decreasing rate

*Refer to the information provided in Table 3.1 below to answer the questions that follow.*

Table 3.1

| Price per Pizza | Quantity Demanded (Pizzas per Month) | Quantity Supplied (Pizzas per Month) |
|---|---|---|
| $4 | 1,000 | 700 |
| 6 | 900 | 750 |
| 8 | 800 | 800 |
| 10 | 700 | 850 |
| 12 | 600 | 900 |

16) Refer to Table 3.1. If the price per pizza is $12, there is a(n)    16) _____
    A) excess supply of 300 units.    B) excess demand of 100 units.
    C) excess demand of 750 units.    D) market equilibrium.

17) Presently the tire market is unregulated and characterized by excess supply. You accurately    17) _____
predict that the price of tires will _____, the quantity demanded will _____, and the quantity
supplied will _____.
    A) rise; fall; rise    B) fall; fall; rise    C) fall; rise; fall    D) rise; rise; fall

18) DVD players and DVDs are complements. A rise in the player price would cause which of the    18) _____
following in the market for DVDs? The equilibrium price
    A) of DVDs would fall and the equilibrium quantity would rise.
    B) of DVDs would rise and the equilibrium quantity would fall.
    C) and quantity of DVDs would fall.
    D) and quantity of DVDs would rise.

19) When buyer and seller trade to the market equilibrium quantity, they    19) _____
    A) minimize deadweight loss.
    B) maximize the difference between consumer and producer surplus.
    C) minimize the sum of consumer and producer surplus.
    D) maximize deadweight loss.

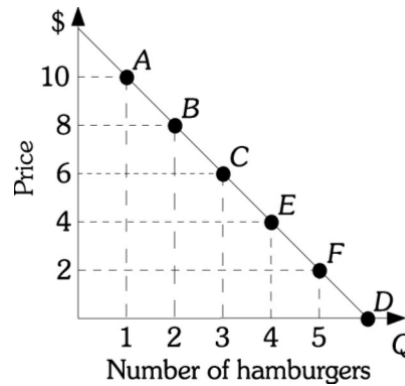*Refer to the information provided in Figure 5.2 below to answer the questions that follow.*



Figure 5.2

20) Refer to Figure 5.2. Using the midpoint formula, if the price of a hamburger is increased from $8 to $10, the price elasticity of demand equals

    A) -2.5.          B) -3.0.          C) 0.36.          D) 333.

20) _____

21) Suppose that video game cartridges are a normal good. If the income of video game players increases, you predict that in the market for video games
    A) equilibrium price will fall but quantity will increase.
    B) both equilibrium price and quantity will fall.
    C) equilibrium price will rise and quantity will decrease.
    D) both equilibrium price and quantity will rise.

21) _____

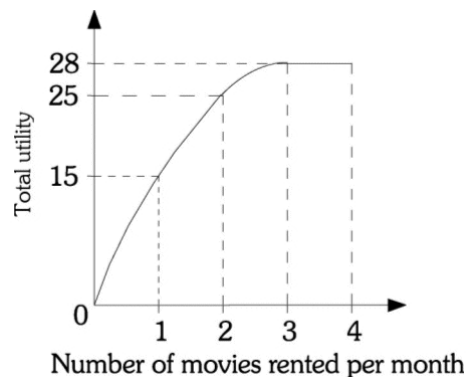*Refer to the information provided in Figure 6.8 below to answer the questions that follow.*



Figure 6.8

22) Refer to Figure 6.8. The marginal utility of the second movie rental is
    A) 10.          B) 12.5.          C) 25.          D) 40.

22) _____

4

SHORT ANSWER.  Write the word or phrase that best completes each statement or answers the question. Each complete answer gives you 2 pts.

23) Consumers find new ways to use their smartphones due to the many new useful apps. At the same time the technology for producing the smartphones improves faster than the app usefulness for the consumers. Predict what will happen to the equilibrium prices and quantities of smartphones, and draw a graph to illustrate the transition from the old to the new equilibrium.

23) _____

24) During the so called oil shocks of the 1970s oil prices increased approximately 10-fold. Assume oil is being used in almost any production. Predict what would happen to optimal production at the micro level after the oil shock. Draw a graph to illustrate the process. What would be a logical thing to happen at the MACRO level after the oil shock?

24) _____

LONG PROBLEM. Each correctly solved sub-problem gives you 1 pt.

25) Suppose that a market is described by the following supply and demand equations: $Q_S = 2P$; $Q_D = 300 - P$.

1. Solve for equilibrium  P and Q, draw a graph ilustrating equilibrium.

2. Suppose that a tax of $T=60$ is placed on sellers. What happens to the price received by sellers, the price paid by buyers, and the quantity sold?

3. How much is the tax revenue? Present calculations.

4. The deadweight loss of a tax is the area of the triangle between the supply and demand curves. Recalling that the area of a triangle is S =1/2*base*height, solve for the deadweight loss when a T=60 is imposed on sellers. Mark the DWL on the graph.

5. (Bonus point here:) Calculate the tax incidence, i.e. the share of the tax burden born by the consumers and the firms.