Market Equilibrium, S&D-Curve Shifts, Elasticities

Multiple Choice (MC) questions usually have only one correct answer, although you may be able to defend different answers. Other kinds of questions often have more than one correct answer. Having good reasons for your answers is more important than what your answer is. If you don’t understand the meaning of a question, you may write to your own TF, but do not expect him/her to give you answers. The problem set will not be graded, but the way you discuss the problems in your discussion section will affect your discussion-section participation score. You are allowed to work on the problem sets with other students.

1. [MC] What would happen if there were large wage increases for workers in the computer-manufacturing industry?
   a. The supply curve of computers would shift left, and the price of computers would increase.
   b. The supply curve of computers would shift right, and the price of computers would decrease.
   c. The demand curve of computers would shift left, and the price of computers would decrease.
   d. The demand curve of computers would shift right, and price of computers would increase.

2. How would the following events affect the demand of Product X?
   i. X becomes more popular
   ii. The price of Y, a substitute for X, decreases.
   iii. Consumers expect their incomes to increase in the future.

3. Suppose you were the first person to open a sandwich shop on Commonwealth Avenue.
   i. What inputs would you need to use? Are those inputs primary factors or intermediate goods?
   ii. Draw an example of a demand curve that your sandwich shop might have and explain its meaning.

After operating the sandwich shop for a year, you earned a lot. One of your classmates is really envious and decides to open a burger place next to you.

iii. How would this change the demand for your sandwiches?
   iv. Suppose in response, you decided to give BU students 20% off for purchasing your sandwiches. Would this affect the sales of chips and drinks in your shop?

4. [MC] When the price of tomatoes increases, people buy fewer onions. This implies that onions and tomatoes are
   a. normal goods.
   b. complements.
   c. substitutes.
   d. inferior goods.

5. [MC] Which of the following is NOT a capital good?
   a. the feeling of friendship and teamwork within a football team
   b. a hunter’s rifle
   c. a professional gambler’s skills
   d. the wood that goes into making a piece of furniture

6. How will the availability of primary factors be affected if women delay having children because of a recession?
7. [MC] The figure illustrates the market for chairs. If the price of a chair is $40, there is a

![Graph of the market for chairs]

a. shortage of chairs and the price will rise.
b. surplus of chairs and the price will rise.
c. shortage of chairs and the price will fall.
d. surplus of chairs and the price will fall.

8. When a very destructive hurricane strikes a city or a country, tap water service is often interrupted.
   i. How is the demand and supply of bottled water likely to change if tap water becomes unavailable?
   ii. Suppose the government forces the price of bottled water to be the same as it was before the hurricane. What would you expect to happen?

9. Which of the following would cause movement along the demand curve, and which would cause the entire demand curve to shift?
   i. Lady Gaga talks about her favorite makeup line on TV.
   ii. Wholefoods Markets decide to take 20% off the prices of their grocery products.
   iii. People are afraid that the price of crude oil next month will rise because of tensions in the Middle East.

10. Explain why a textile manufacturer is willing to sell more T-shirts when the price of T-shirts is higher.

11. [MC] When the bus company decreases the price of bus rides, its total revenue does not change. This means the demand for bus rides must be

   a. unit elastic
   b. inelastic
   c. elastic
   d. perfectly inelastic

12. Tom and colleagues have estimated that the cross-price elasticity of demand between beer and wine is 0.31. If the price of wine increases by 10 percent, then the quantity of beer demanded will _____ by _____ percent. Are beer and wine complements?

13. [MC] In addition, Tom has estimated the income elasticity of demand for beer to be −0.02. This means that

   a. beer is a normal good.
   b. beer is a luxury.
   c. very few people like beer.
   d. people want to drink almost the same amount of beer no matter their income level.
14. [MC] The figure on the right shows the relationship between Moira's income and the quantity of macaroni that she demands. When income is less than $350 per month, macaroni
   a. is a normal good
   b. has negative income elasticity
   c. has many substitutes
   d. is an inferior good

15. Does your above answer change when income is more than $350 per month? Explain fully.

16. Suppose the price of coffee increases by 20% because of the lack of rain.
   i. What is the most that the quantity demanded of coffee can fall if coffee has an inelastic demand?
   ii. If the quantity consumed of bagels decreases by 15% as a result, what can you say about the relationship between coffee and bagels?
   iii. Would you expect the demand for coffee to be more elastic or less elastic than the demand for Starbucks coffee? Why?

17. Suppose that the elasticity of demand for a good is $-1/2$. What happens to total consumer expenditures when the price increases by 10 percent? Show your calculations. Explain why your answer makes sense.

18. Consider the demand for the following goods, and state whether you think the demand for each of them is elastic or inelastic. Explain why.
   i. water
   ii. computers
   iii. Lamborghinis (very expensive Italian sports cars)
   iv. coffee from Pavement Coffee House
   v. all types of coffee
   vi. cigarettes

19. Suppose the price elasticity of demand for Dove shampoo is $-1.5$.
   i. If the price of Dove shampoo increases by 20%, by how much will the quantity demanded decrease?
   ii. Unilever owns many hair care brands, including Dove. Suppose Unilever increases the price of ALL of its shampoos by 20%. Do you think the quantity demanded of all Unilever shampoos will decrease by more or less than your answer to part i?

20. Suppose Bill Gates and your uncle each likes to have one glass of champagne every night. Do you think Bill Gates’ demand is elastic or inelastic? What about your uncle’s? Why? Are the two elasticities likely to be different? Explain carefully.