EC101 DD/EE. Problem Set 6

Multiple Choice (MC) questions have only one correct answer. Other kinds of questions may have more than one correct answer. If you don't understand the meaning of a question, you may write to ***your own TF*** *(on course website see* Classes > Teaching Fellows*), 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 score. Your work on the problem sets will improve you performance in the course, but only if you understand* ***the ideas behind the answers****. Good reasons for your answer are more important than what the answer is. You are allowed to work on the problem sets with other students.*

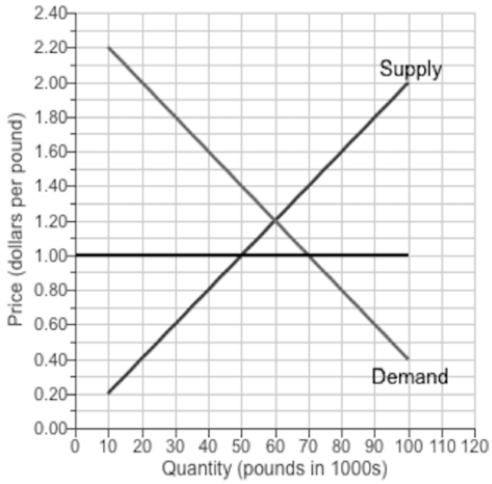
1. *[MC]* A price ceiling imposed on a perfectly competitive market will change equilibrium price and quantity when
   a. it's above the equilibrium price.
   b. it's below the equilibrium price.
   c. when demand is inelastic.
   d. when demand is elastic.

2. The market for beer in the free city of Karalis is perfectly competitive. Worried about alcoholism among young people, the government studies ways of decreasing beer consumption.
   i. Name two different economic policies the government could implement to achieve their goal.
   ii. Which of those two policies would you prefer and why?

3. Draw the graphs suggested below to show the effects of rent control.
   i. Draw a demand curve for apartments and a perfectly inelastic supply of apartments. Label the areas corresponding to renters' surplus (consumer surplus) "CS" and the landlord surplus (producer surplus) "PS".
   ii. The government imposes binding rent control setting rents below the market equilibrium. Draw this on the graph. Label the area corresponding to the additional surplus for renters as "CS+".
   iii. What happens to landlord surplus? Does it increase/decrease? Draw the area that shows the increase/decrease in landlord surplus.
   iv. Why does rent control tend to reduce apartment maintenance?
   v. Suppose a fire burns down several apartments because of poor maintenance and the government decides to eliminate the rent control. In a new graph, draw the supply shift and label the new renter surplus "CS2". What happens to consumer surplus?

4. In a labor market the employers pay an hourly wage for labor. The number of hours that workers are willing to work depends on the wage. Suppose the government taxes employers $3 per hour of hired labor.
   i. Who are the sellers in this market? Who are buyers?
   ii. Draw supply and demand curves in this market. Label your axes.
   iii. Draw the effect of the tax. Identify the wage received by the workers, the wage paid by the employer, and the deadweight loss.
   iv. Is the equilibrium wage received by workers higher or lower with the tax compared to the equilibrium without the tax? By more or less than $3.00?
   v. Is the equilibrium quantity of hours worked higher or lower with the tax compared to the equilibrium without the tax?
   vi. Suppose employers can move production to other countries. Who do you think would pay most of the tax? Explain.

5. Suppose the figure below represents a local market for meat. What would be the effect of a government price ceiling of $1.00 per pound?
   i. Would it create a shortage? a surplus? How large?
   ii. Would there be nonprice rationing?
   iii. What would the deadweight loss from the price ceiling be? Explain.



6. *[MC]* Suppose the price elasticity of demand for yachts is –4, while the price elasticity of supply for yachts is +0.2. If Congress places a luxury tax on yachts, who will pay most of the tax?
   a. It's impossible to tell without additional information.
   b. Yacht builders and buyers will pay equally.
   c. Yacht builders will pay more.
   d. Yacht buyers will pay more.

7. Examine the following table and use it to answer the questions:

Table: Market for Sandwiches

Price(unit)	Quantity Demanded (units)	Quantity Supplied (units)
$1.10	9,000	3,000
$1.20	8,000	5,000
$1.30	7,000	7,000
$1.40	6,000	9,000
$1.50	5,000	11,000

   i. *[MC]* The government decides to tax sandwiches at a rate of $0.30 per sandwich and collect that tax from the sandwich shops. Once the tax is introduced, consumers will pay ___ per sandwich and _____ sandwiches will be sold.
   a. $1.30; 7,000
   b. $1.40; 6,000
   c. $1.50; 5,000
   d. $1.20; 8,000

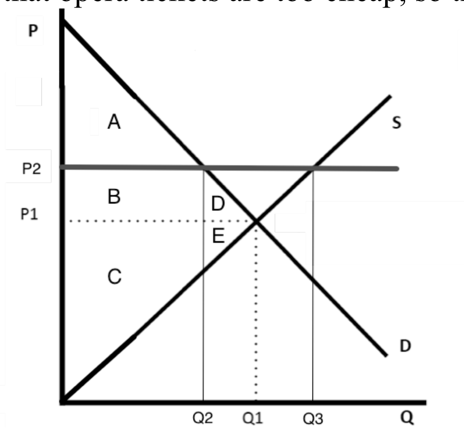
   ii. *[MC]* How much of the tax is paid by consumers? How much by the sandwich shops?
   a. $0.20; $0.10
   b. $0.00; $0.30
   c. $0.15; $0.15
   d. $0.30; $0.00

8. True or False? Explain each answer.
   i. In general, a tax raises the price the buyers pay, lowers the price the sellers receive, and reduces the quantity sold.
   ii. The deadweight loss from a tax is the decrease in consumer surplus from such tax.
   iii. When a tax is placed on a good, the revenue the government collects is equal to the loss of consumer and producer surplus from the tax.
   iv. A larger tax always generates more tax revenue.

9. Suppose beer and milk have the same supply curve. They also have the same equilibrium price and quantity. However, the demand for beer is more elastic than the demand for milk. Suppose the government is considering taxing each good by $2.
   i. Which tax would have a larger deadweight loss? Explain.
   ii. Which one would collect more tax revenue? Explain.
   iii. Which one would impact the equilibrium quantity the most?

10. *[MC]* Which of the following is ***NOT*** an effect of a binding minimum wage (price floor in the labor market)?
    a. People with the lowest opportunity cost of working will get jobs.
    b. Some people won't be able to find jobs.
    c. Employers may discriminate against female job candidates.
    d. Some economic surplus will be lost.
    e. Some of the workers who remain employed will be better off.

11. The following graph shows the market for opera tickets. Suppose the National Opera Association says that opera tickets are too cheap, so they force opera theaters to increase ticket prices to P2.



   i. How many empty seats will there be at the opera theaters?
   ii. How many opera tickets will be sold?
   iii. What is the consumer surplus before and after the price change?
   iv. What is the producer surplus before and after the price change?
   v. What was the change in economic surplus?

12. *[MC]* Under which of the following circumstances would the incidence of an excise tax fall entirely on consumers?
    a. Demand is perfectly elastic.
    b. Supply is perfectly elastic.
    c. Both demand and supply are unit elastic.
    d. ALL OF THE ABOVE.

13. Suppose the supply curve of floor lamps is very inelastic. The equilibrium price of floor lamps is $50. The government plans to introduce a $30 subsidy on floor lamps (because every home needs one).
    i. Will the quantity sold increase or decrease? By a lot or by a little?
    ii. Will the revenue of the producers increase or decrease? By a lot or by a little?

14. *[MC]* Which of the following statements are true about rent controls?
    a. Producer surplus increases.
    b. People who value an apartment more are guaranteed to get it.
    c. Consumer surplus will increase for some consumers.
    d. Landlords rent more apartments.