Department of Economics
University of California, Davis
ECONOMICS 1A

Spring 2010 L. Jay Helms

Second Midterm Exam – Version A

Last Name: _____ First Name: _____

Your Student ID Number: ___ ___ ___ – ___ ___ – ___ ___ ___ ___

Please check your *registered* section number:

[ ]	B01	Mr. Jeremy Moulton	M 6:10-7	Wellman 027
[ ]	B02	Mr. Jeremy Moulton	M 5:10-6	Wellman 027
[ ]	B03	Mr. Jeremy Moulton	W 5:10-6	Wellman 027
[ ]	B04	Mr. Jeremy Moulton	W 6:10-7	Wellman 027
[ ]	B05	Mr. Chris Ayres	T 6:10-7	Wellman 027
[ ]	B06	Mr. Chris Ayres	T 5:10-6	Wellman 027
[ ]	B07	Ms. Paris Ba	R 6:10-7	Hart 1116
[ ]	B08	Ms. Paris Ba	R 7:10-8	Hart 1116
[ ]	B09	Ms. Paris Ba	T 4:10-5	Wellman 235
[ ]	B10	Ms. Paris Ba	T 5:10-6	Hart 1120
[ ]	B11	Mr. Chris Ayres	R 4:10-5	Wellman 233
[ ]	B12	Mr. Chris Ayres	R 5:10-6	Wellman 205

On your Scantron form you *must* bubble in:

- Name: Last Name, First Name
- Subject: "Ecn 1A"
- Test No.: "2"
- Date: "5/13/2010"
- Hour: Your section, for example, "B06"
- ID Number: Your nine-digit student ID number
- Test Form: Your exam version ("A")

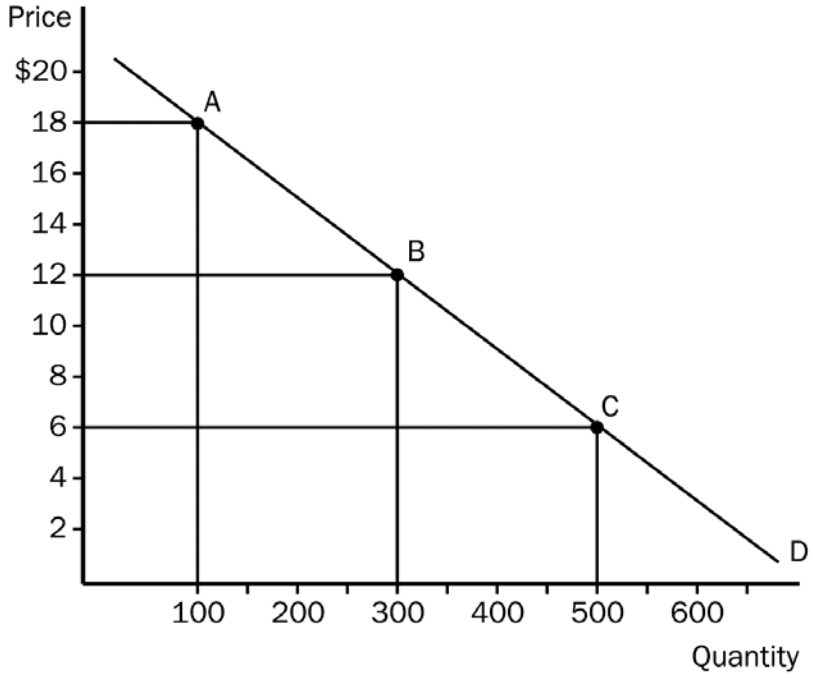
Part A: Multiple Choice Questions

(25 questions, each of which is worth 3 points)

Instructions: Choose the *best* answer. Answer these multiple choice questions only on your Scantron.

Warning: Scantron errors may occur if you fail to erase an incorrect answer completely. Where erasures are incomplete and the Scantron machine—detecting two answers to the same question—marks your answer as wrong, no regrading can be allowed. It is your responsibility either to be certain of your answers before you mark them or to be very careful to erase completely any incorrect markings. You may wish to replace your Scantron form with a new one if you need to correct an error.

1. We would expect a luxury good to have a price elasticity of demand which is
   a. greater than 1.
   b. equal to 1.
   c. between 0 and 1.
   d. zero.
   e. negative.



2. In the graph above, where is the demand curve most elastic?
   a. Point A.
   b. Point B.
   c. Point C.
   d. Then answer depends on the elasticity of the supply curve.

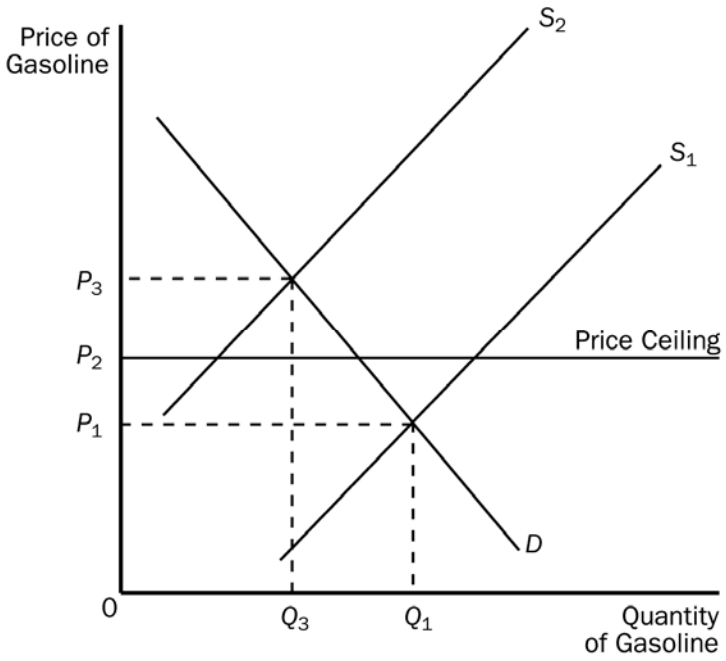
3. Last year freezing weather in Florida reduced the quantity of fruit sold by 20% and increased the retail price of fruit by 30%. One can conclude that
   a. the demand for fruit has shifted down along a perfectly elastic supply curve.
   b. the demand for fruit has shifted down along a perfectly inelastic supply curve.
   c. the supply of fruit has shifted up along an inelastic demand curve.
   d. the supply of fruit has shifted up along an elastic demand curve.
   e. the demand for fruit in unit elastic.

4. If a 6 percent increase in *income* results in a 10 percent increase in the quantity of pizza demanded, then the income elasticity of demand for pizza is
   a. negative and therefore pizza is an normal good.
   b. negative and therefore pizza is a inferior good.
   c. positive and therefore pizza is an inferior good.
   d. positive and therefore pizza is a normal good.

5. Which of the following would ***not*** be correct concerning government attempts to reduce the flow of illegal drugs into the country?
   a. Drug interdiction raises prices and total revenue in the drug market.
   b. Drug interdiction can increase drug-related crime.
   c. Drug interdiction shifts the supply curve of drugs to the left.
   d. Drug interdiction shifts the demand curve for drugs to the left.

6. If a price ceiling is a binding constraint,
   a. the actual price will be below the price ceiling.
   b. the actual price will be above the price ceiling.
   c. the equilibrium price will be equal to the price ceiling.
   d. the actual price will be equal to the price ceiling.

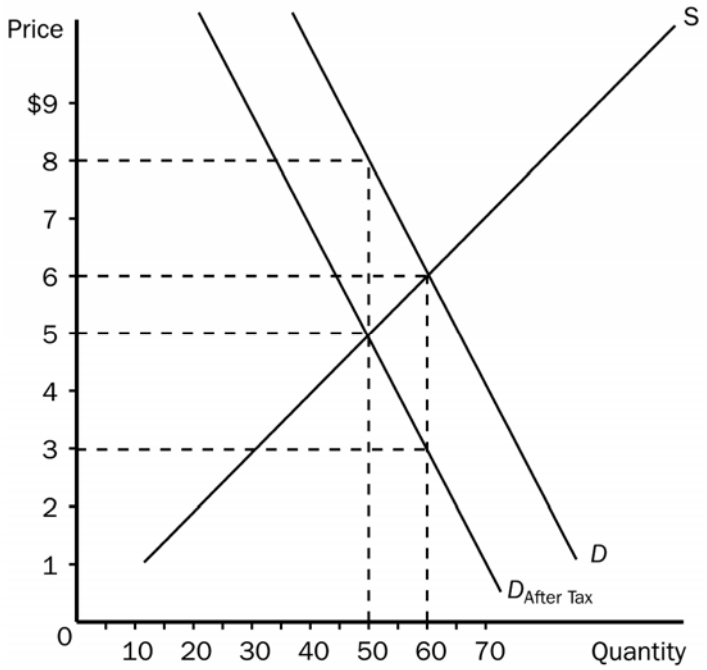
The following two questions relate to the graph below:



7. Suppose that there is a price ceiling in this market as shown. Then when the supply curve for gasoline shifts from S_1 to S_2
   a. the price will increase to P_3.
   b. a surplus will occur at the new market price of P_2.
   c. the market price will stay at P_1 due to the price ceiling.
   d. a shortage will occur at the price ceiling of P_2.

8. Now suppose that the price ceiling were removed. Then when the supply curve shifts from S_1 to S_2 the price will
   a. increase to P_3, but a shortage will still exist.
   b. increase to P_3 and the market will clear.
   c. remain at P_1 and a shortage will still exist.
   d. eventually move to P_2 without government assistance.

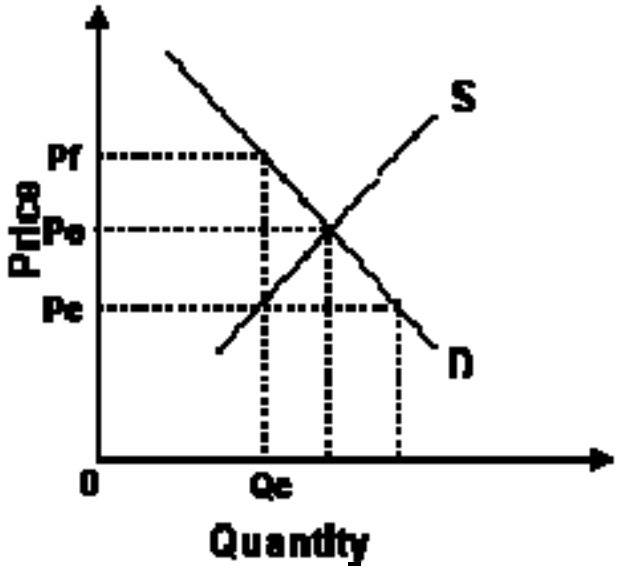
9. Workers with high skills and much experience are not affected by the minimum wage because
   a. they usually belong to unions.
   b. they are not legally guaranteed the minimum wage.
   c. they generally earn wages less than the minimum wage.
   d. their equilibrium wages are well above the minimum wage.



10. According to the figure above, the amount of the tax imposed in this market is
    a. $1.00 per unit.
    b. $1.50 per unit.
    c. $2.50 per unit.
    d. $3.00 per unit.

11. Suppose that a tax is placed on DVDs. If the seller ends up bearing most of the burden of the tax we can conclude that
    a. the supply curve is more elastic than the demand curve.
    b. the demand curve is more elastic than the supply curve.
    c. the government has placed the tax on the seller.
    d. the government has placed the tax on the buyer.

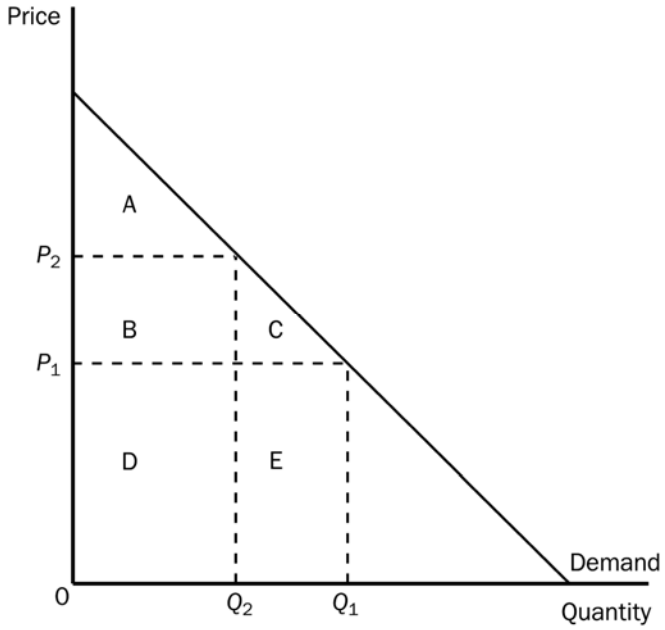
12. The producers bear the entire burden of a sales tax when
    a. The supply is perfectly elastic.
    b. The supply is perfectly inelastic.
    c. The supply is unit elastic
    d. The demand is unit elastic.
    e. The demand is perfectly inelastic.



13. In New York City the rent on many apartments is set below market rates. As a result, many people find that the only way to obtain an apartment is to make illegal payments to landlords. Referring to the figure above, if Pc is the controlled rent, the equilibrium "bribe" that tenants must pay landlords each month is
    a. Pf - Pc.
    b. Pe.
    c. Pe - Pc.
    d. Pf.
    e. Pf - Pe.

14. When the competitive market is using its resources efficiently,
    a. consumer surplus is maximized.
    b. producer surplus is maximized.
    c. the sum of consumer surplus and producer surplus is maximized.
    d. there will be no consumer surplus or producer surplus.
    e. consumer surplus will exceed producer surplus.

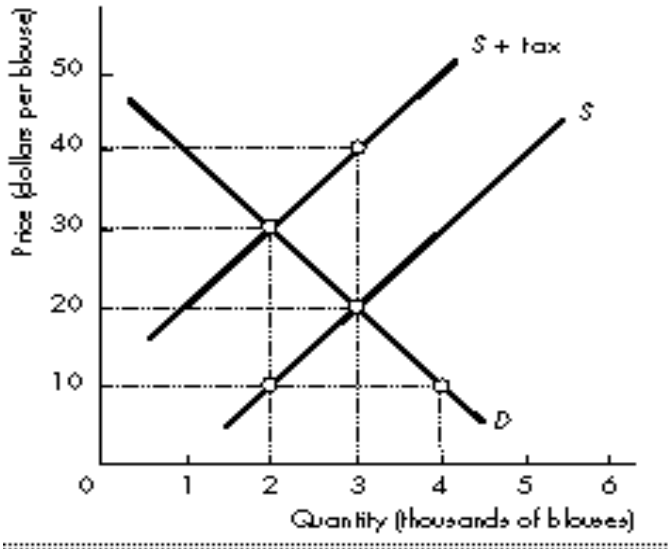
15. Shannon buys a new CD player for her car for $135. She receives consumer surplus of $25 on her purchase. Her willingness to pay is therefore
    a. $25.
    b. $110.
    c. $135.
    d. $160.



16. According to the graph shown, when the price rises from P_1 to P_2, which of the following sentences would ***not*** be true?
    a. The buyers who still buy the good are worse off because they now pay more.
    b. Some buyers leave the market because they are not willing to buy the good at the higher price.
    c. The total value of what is now purchased by buyers is actually higher.
    d. Consumer surplus in the market falls.

17. The Surgeon General announces that eating chocolate increases tooth decay. As a result, the equilibrium market price of chocolate
    a. increases, and producer surplus necessarily increases.
    b. increases, and producer surplus necessarily decreases.
    c. decreases, and producer surplus necessarily decreases.
    d. decreases, and producer surplus necessarily increases.
    e. increases, and producer surplus might either increase or decrease.

18. Suppose that the equilibrium price in the market for widgets is $5. If a law increased the minimum legal price of widgets to $6, producer surplus
    a. would necessarily increase even if the higher price resulted in a surplus of widgets.
    b. would necessarily decrease because the higher price would create a surplus of widgets.
    c. might either increase or decrease.
    d. would be unaffected.



19. The above figure shows the market for blouses. The price is given in dollars per blouse and the quantity is given in thousands of blouses. The government decides to impose a sales tax on blouses. Using the figure, how much consumer surplus is lost?
    a. $10,000.
    b. $20,000.
    c. $25,000.
    d. $40,000.

20. A technological advance in the production of computers will
    a. increase consumer surplus in the market for computers and decrease producer surplus in the market for computer software.
    b. increase consumer surplus in the market for computers and increase producer surplus in the market for computer software.
    c. decrease consumer surplus in the market for computers but increase producer surplus in the market for computer software.
    d. decrease consumer surplus in the market for computers and decrease producer surplus in the market for computer software.

21. Which of the following statements is the most plausible?
    a. Reducing a high tax rate is less likely to increase tax revenue than reducing a low tax rate.
    b. Reducing a high tax rate is more likely to increase tax revenue than reducing a low tax rate.
    c. Reducing a high tax rate will have the same effect on tax revenue as reducing a low tax rate.
    d. Reducing a tax rate can never increase tax revenue.

22. When evaluating the size of the deadweight loss due to a tax we know that
    a. the greater the elasticities of supply and demand, the greater the deadweight loss.
    b. the smaller the elasticities of supply and demand, the greater the deadweight loss.
    c. the smaller the decrease in both quantity demanded and quantity supplied, the greater the deadweight loss.
    d. deadweight loss is greater when demand is more elastic and supply is less elastic.
    e. deadweight loss is greater when demand is less elastic and supply is more elastic.

23. When the size of a tax is doubled, the deadweight loss from the tax
    a. remains constant.
    b. increases, but less that doubles.
    c. doubles.
    d. more than doubles.

24. Suppose that the equilibrium quantity in the market for widgets has been 200 per month. Then a tax of $5 per widget is imposed on widgets. The price paid by buyers increases by $2 and the after-tax price received by sellers falls by $3. The government is able to raise $750 per month in revenue from the tax. The deadweight loss from the tax is
    a. $250.
    b. $125.
    c. $75.
    d. $50.
    e. $875.

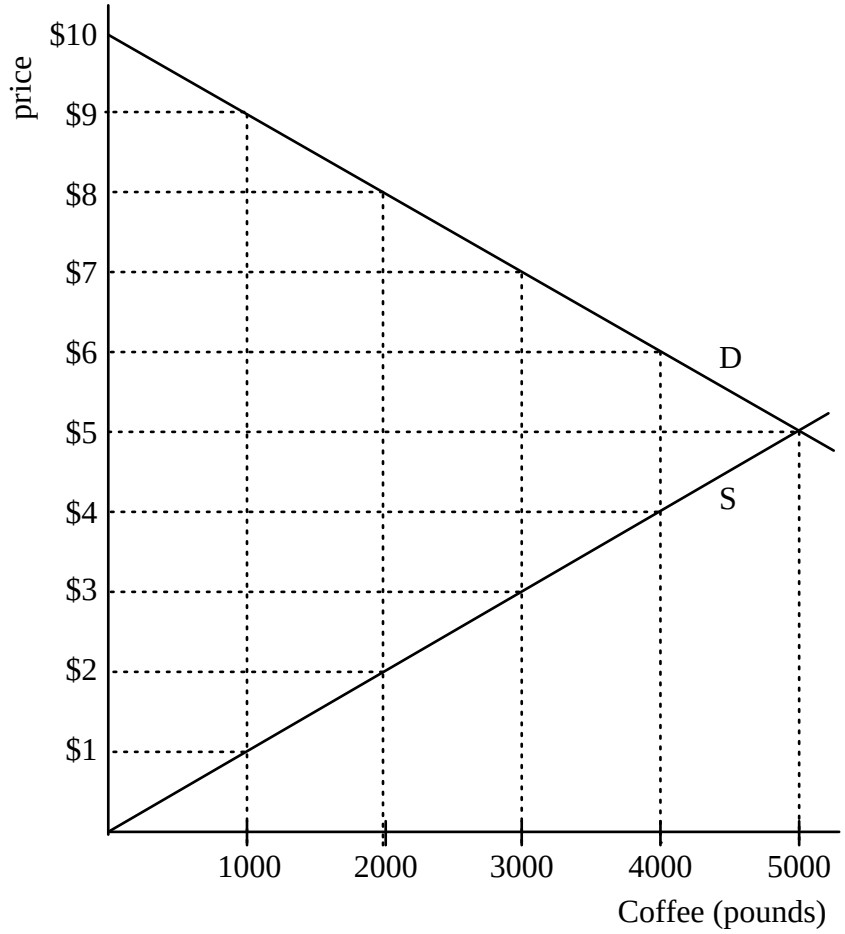
25. As the tax rate increases, we know that
    a. tax revenue continually rises and deadweight loss continually falls.
    b. deadweight loss initially rises but it begins to fall as tax revenue falls.
    c. deadweight loss continually rises.
    d. deadweight loss initially falls, but it begins to rise as tax revenue falls.

Part B: Short Answer Question
Points for each part are in parentheses.

Instructions: Write your answers on this exam sheet, *not* in a separate blue book.

1. <u>Surplus, Taxes and Deadweight Loss</u> (25 points total)

Consider the following demand and supply curves for coffee:



a. (2) Calculate consumer surplus at the market price. Show your work.

b. (2) Calculate producer surplus. Show your work.

c. (4) Is the quantity produced in this market the *efficient* quantity? Explain how you know.

d. (2) If a tax of $2 per pound is levied on coffee *sellers*, show with appropriate shift(s) of the curve(s) how the tax would affect the market.

e. (3) Show, by shading, the area of the curve that represents the *lost* producer surplus. Label this area "ΔPS."

f. (3) Show, by shading, the area of the curve that represents the *lost* consumer surplus. Label this area "ΔCS."

g. (3) What is the tax revenue collected? Show your calculations.

h. (3) What is the amount of deadweight loss? Show your calculations.

i. (3) Explain how deadweight loss arises. That is, *why* does the loss in total surplus exceed the tax revenue raised?