

**ECON 102: Microeconomics**

**Your Name:** (15 points) \_\_\_\_\_

**Instructor: Murray, James**

**Take Home Final Exam**

**Due date: Tuesday, May 5, 2009 at 12pm (Late exams receive zero credit)**

1. On February 4, 2009, President Obama signed into law a 61.66 cents increase in the Federal tax on a pack of cigarettes.
  - (a) The Congressional Joint Committee on Taxation (JCT) estimated this (along with other changes to tobacco taxation) would increase tax revenues on cigarettes by \$32.5 billion over the next five years. If this is true, what must be true about the demand for cigarettes?
  - (b) Would you expect the price of cigarettes to go up by more than 61.66 cents, up by less than 61.66 cents, or up by exactly 61.66 cents? Explain your answer with an appropriate graph.
  - (c) Who would you expect to have a larger share of the tax burden, consumers or producers? Explain with an appropriate graph.
  - (d) Define a *deadweight loss*. Illustrate with a graph the deadweight loss that could result from this policy. Do you think the deadweight loss will be large or small? Explain.
  
2. Suppose peanut farmers are part of a perfectly competitive market and as of the middle of 2008, most were making zero economic profits. There was a salmonella (food poisoning) outbreak in December, 2008 and January 2009, that was traced back to peanuts processing facilities, and was eventually responsible for causing 491 people to be sickened and 10 fatalities.
  - (a) What should have happened to the price and quantity of peanuts as a result. Explain your answer with a supply and demand graph.
  - (b) As a consequence of the change in price, what would happen to the profits/losses of the perfectly competitive firms producing peanuts? As a consequence would you expect new firms to enter the industry, or existing firms to exit the industry?
  - (c) Peanut butter is largely an inferior good. What impact do you think the current economic recession has had on the market for peanuts since the beginning of 2009? Show with a supply and demand graph what would have happened to the quantity and price of peanuts.
  - (d) As a consequence of this change in price, what would happen to the profits/losses of the perfectly competitive firms producing peanuts? As a consequence would you expect new firms to enter the industry, or existing firms to exit the industry?

- Check out this related story in the news if you are interested:  
<http://www.star-telegram.com/business/story/1324274.html>

3. One cause of the current economic recession was a sudden flood of home loan foreclosures in 2007 and 2008, as people who took out adjustable rate mortgages as far back as 2003 could no longer afford to make house payments. As a consequence many assets that are based on mortgage assets have lost incredible value, and the stock market along with many consumers' savings has plummeted.
  - (a) What has been the consequence of all this on the prices and quantities of *existing homes*. Show with a graph what has happened to the supply and demand for existing homes.
  - (b) The financial turmoil has make it difficult for many businesses to borrow money to finance purchasing new capital, supplies, etc, to run their business. One industry that has been strongly affected this is the construction businesses. What do you predict is the consequence for price and quantity in the market for *new homes*? Show with a graph what has happened to the supply and demand for new homes.