Price Theory I TFUs
Practice Set 01

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1. The share of income spent on necessities declines with the level of income. Therefore, all necessities are inferior goods. (3.1.1).

   False. Inferior goods are those with negative income elasticity. Share of income spent on necessities simply means that income elasticity is less than 1.

2. A government price control imposed on the wholesale competitive market for a good will lower its retail competitive price. (3.3.1, Core 2002)

   False. The price control decreases the supply of the good in the retail market, so it will likely increase the retail competitive price. This is essentially transferring surplus from consumers to retailers.

3. If corn and soybeans can be produced on the same land and are both used as animal feed, then a tax on soybeans will reduce the price of corn and increase corn production. (3.5.1, Final 1999)

   Uncertain. Since corn and soybeans are substitutes at the production side, the producers will substitute towards corn production since it's more expensive to produce soybeans. So supply of corn increases. Furthermore, corn and soybeans are substitutes at the consumption side (as animal feed) so animal owners will substitute towards soybeans and increase demand for corn. The price of corn depends on the relative elasticity of supply to demand.

4. A person volunteers to provide blood for hospitals when all blood is acquired by voluntary donations. Then the system changes to allow hospitals to also purchase blood and this person stops donating it. Such behavior cannot be derived from utility maximization if utility does not directly depend on whether blood can be purchased. (3.7.1, Core 1998)

   Uncertain. Whether blood can be purchased or not need not enter the utility function of the people. For example, people's utility may depend on the amount of blood stored in the hospital. After the system is changed, this person may quit because he may think the blood is supplied enough by other people.

5. Popular bands and musicians often price their tickets below the market clearing price and, as a result, such tickets sell out very quickly. In this case, they are not profit maximizing. (4.1.1)

False. Two ways that they can be profit maximizing: (1) if their music and concerts can be thought of as an addictive good, they may be selling below market price to accelerate the buildup of agents' stock for addiction to kick in; (2) the tickets are complements to other goods provided by them, such as CDs or albums. In fact, this is exactly why K-Pops hold free concerts throughout the U.S. several years ago when they were first being introduced.

6. If all production functions have constant returns to scale, then all supply curves in the economy are infinitely elastic. (4.3.1, Core 1996)

   Uncertain. In the general equilibrium with many industries, however, even though all industries have CRS technologies, if the proportional use of factors (i.e., K/L) is different among them, then the supply curve can be rising. If K/L are the same to all industries, the supply curves will be infinitely elastic.

7. A per unit tax on an input used by a competitive industry will lower industry profits. (4.5.1, Core 2001)

   False. Profits can rise if prices increases more than the average cost. This can occur if output demand is inelastic (so consumers bear the tax) and some factors are fixed.

8. Output prices will tend to grow faster in the sectors with higher rates of TFP growth. (4.7.1, Final 1999)

   False. Recall the equation $\Delta TFP = S_L(\Delta W - \Delta P) + S_K(\Delta R - \Delta P)$. Output price will grow slower in sectors with high rates of TFP growth.

9. A decrease in market share for the dominant firm in an industry is an indication that the market has become more competitive. (4.9.1)

   False. If the firm has lower market share because it's restricting output, then in fact the market has become less competitive. If it is because new firms have entered, it has become more competitive.