**ECON 1000 – Contemporary EconomicIssues “Surplus, Efficiency, and DeadweightLoss”**

# Relevant Readings from the Required Textbook:

* Chapter 5, *Surplus, Efficiency, and Deadweight Loss*

# Definitions and Concepts:

* **Negative-sum environment** – a situation in which the sum of gains and losses over all people is negative in value
* **Zero-sum environment** – a situation in which the sum of gains and losses over all people is exactly equal to zero
* **Positive-sum environment** – a situation in which the sum of gains and losses over all people is positive in value
* **Win-win outcome** – an outcome for which all people are better off than they would have been if the outcome was not realized (i.e., everybody “wins”).
* **Win-lose outcome** – an outcome for which some people are better off and some people are worse off than they would have been if the outcome was not realized (i.e., some people “win” but other people “lose”).
* **consumer’s surplus** – a measure of the net gain that a buyer realizes from making a purchase, equal to the difference between his reservation price for the item and the price he actually pays for the item.
* **producer’s surplus** – a measure of the net gain that a seller realizes from making asale, equal to the difference between the price she actually receives for the item and her reservation price for the item.
* **social surplus** – a measure of the net gains to society from a trade, equal to the summation of the individual gains (or losses) from the trade over all members of society.
* **total social surplus** – a measure of the total gains from trade realized by society, defined as Social Surplus, added over all units traded.
* **total consumers’ surplus –** a measure of the total gains from trade realized by all consumers, defined as each individual’s Consumer’s Surplus, added over all units purchased.
* **total producers’ surplus** – a measure of the total gains from trade realized by all sellers, defined as each individual’s Producer’s Surplus, added over all units sold.
* **efficient level of trade** – the level of trade which maximizes Total Social Surplus
* **deadweight loss** – the difference between maximum possible Total Social Surplus and realized Total Social Surplus.
  + by construction, Deadweight Loss is zero at the efficient level of trade and is positive at any other level of trade.
* **open-ended fallacy** – a logical error whereby someone incorrectly concludes that simply because there are benefits (to some people) from higher levels of an activity, that more of the activity is always better.

# Multiple Choice Questions:

1. “Deadweight Loss” refers to
   1. the negative impact of industrial production on our scarce environmental resources.
   2. the difference between “maximum possible Total Social Surplus” and “realized Total Social Surplus.”
   3. the profits that firms make in a free market economy.
   4. the burden that consumers incur from having to pay for goods, instead of being given the goods for free.
2. Ty owns a copy of the book “The Economic Naturalist: In Search of Explanations for Everyday Enigmas,” autographed by the author Robert Frank. His reservation price as a seller of this item is $70. Bob’s reservation price as a buyer of this item is $60. If this unit was traded (i.e., transferred from Ty to Bob)
   1. Social Surplus would be decreased by $10.
   2. Social Surplus would be increased by $10.
   3. Social Surplus would be increased by $130.
   4. Social Surplus would be increased, but the magnitude of the increase depends upon the price at which trade takes place.
3. A situation in which the sum of gains and losses over all people is positive in value is defined as a
   1. win-win outcome.
   2. win-lose outcome.
   3. positive-sum environment.
   4. negative-sum environment.
4. Consider a market in which the efficient level of trade is 5,250 units. There would be a positive Deadweight-Loss if units were traded.

A. 0.

B. 4,500.

C. 7,750.

D. More than one (perhaps all) of the above answers are correct.

1. Dave bought 10 comic books from Eric. This trade gave Eric a Producer’s Surplus of $20 and generated a Social Surplus of $36. It follows that Dave realized a from this trade.
   1. negative Consumer’s Surplus
   2. Consumer’s Surplus of $16
   3. Consumer’s Surplus of $56
   4. None of the above answers are correct.
2. In most markets Total Social Surplus is equal to
   1. “Total Consumers’ Surplus” plus “Total Producers’ Surplus.”
   2. “Total Consumers’ Surplus” minus “Total Producers’ Surplus.”
   3. “Total Benefit to Buyers” minus “Total Amount Paid by Buyers.”
   4. “Equilibrium Price” multiplied by “Equilibrium Quantity.”
3. Consider an outcome for which Al loses $4, Beth gains $3, and Charles gains $2. Based upon this information, it appears as if this is a
   1. positive-sum environment.
   2. zero-sum environment.
   3. negative-sum environment.
   4. win-win outcome.

***For questions 8 and 9, refer to the graph below. This graph illustrates the supply and demand for hats in 2016.***

price

Supply 2016

11.95

8.10

5.00

0

*(a)*

*(e)*

*(c)*

*(b)*

*(f)*

*(g)*

*(h)* Demand 2016

quantity

0 1,670 3,330 4,635

*(d)*

1. In equilibrium
   1. both Total Producers’ Surplus and Total Consumers’ Surplus are zero. both
   2. Total Producers’ Surplus and Total Consumers’ Surplus are positive. Total
   3. Producers’ Surplus is positive, but Total Consumers’ Surplus is zero. Total
   4. Consumers’ Surplus is positive, but Total Producers’ Surplus is zero.
2. If 1,670 units were traded, Deadweight-Loss would be
   1. negative.
   2. equal to “area (g).”
   3. equal to “area (e) plus area (f).”
   4. equal to “area (g) plus area (h).”
3. Consider an item that Scott values as a buyer at $15 and Brad values as a seller at

$10. Trade of this item (i.e, transferring ownership from Brad to Scott)

* 1. is a zero-sum environment.
  2. results in a win-win outcome if trade takes place at a price of $25.
  3. results in a win-lose outcome if trade takes place at $5.
  4. None of the above answers are correct.

1. The refers to the logical error whereby someone incorrectly concludes that simply because there are benefits (to some people) from higher levels of an activity, that more of the activity is always better.
   1. Invisible Hand
   2. Economic Calculation Problem
   3. Open-Ended Fallacy
   4. Phillips Curve
2. Which of the following statements is correct?
   1. “ consumer’s surplus is a measure of the net gain that a buyer realizes from making a purchase, equal to the difference between his reservation price for the item and the price he actually pays for the item.”
   2. “In a zero-sum environment a win-win outcome can never be realized.”
   3. “A win-lose outcome can possibly be realized in a positive-sum environment.”
   4. More than one (perhaps all) of the above statements are correct.

# Answers to Multiple Choice Questions:

1. B
2. A
3. C
4. D
5. B
6. A
7. A
8. B
9. C
10. C
11. C
12. D