ECON 1000 – Contemporary Economic Issues
“How a Market System Functions”

Relevant Readings from the Required Textbooks:
- Chapter 4, Organizing Principles of Capitalist Systems
- Coda, “I, Pencil”

Definitions and Concepts:
- money – an asset that is socially and legally accepted as a medium of exchange.
- three functions of money:
  - medium of exchange – an asset used as payment when purchasing goods/services
  - store of value – an asset that serves as a means of holding wealth
  - unit of measure – a basic measure of economic activity
- demand – the relationship between the price of a good and the quantity that consumers are willing and able to purchase, all other factors fixed
- supply – the relationship between the price of a good and the quantity that firms are willing and able to sell, all other factors fixed
- Law of Demand – all other factors fixed, a greater quantity of a good will be demanded at lower prices (demand curves are downward sloping).
- Law of Supply – all other factors fixed, a greater quantity of a good will be supplied at higher prices (supply curves are upward sloping).
- “Horizontal Interpretation” of Demand Curve – start by focusing on a particular price, and then go over to the demand curve horizontally to determine the corresponding quantity demanded at this particular price.
- “Vertical Interpretation” of Demand Curve – start by focusing on a particular quantity demanded, and then go up to the demand curve vertically to determine the corresponding price at which this particular quantity would be demanded.
- “Horizontal Interpretation” of Supply Curve – start by focusing on a particular price, and then go over to the supply curve horizontally to determine the corresponding quantity supplied at this particular price.
- “Vertical Interpretation” of Supply Curve – start by focusing on a particular quantity supplied, and then go up to the supply curve vertically to determine the corresponding price at which this particular quantity would be supplied.
- buyer’s reservation price – the maximum amount of money that he is willing to give up to acquire the item.
- seller’s reservation price – the minimum amount of money that she is willing to accept in exchange for the item.
- equilibrium – a “stable state” for a system which will persist as long as outside factors do not change.
  - at the market equilibrium no individual buyer and no individual seller can alter his or her own behavior in such a way as to increase his or her own surplus.
- excess supply – a situation in which quantity supplied is greater than quantity demanded (resulting in “downward pressure” on price).
• **excess demand** – a situation in which quantity demanded is greater than quantity supplied (resulting in “upward pressure” on price).

• The Market Equilibrium in the model of Supply and Demand is:
  - stable – if we are there we will stay there, unless outside forces change
  - unique – there is one and only one equilibrium, a property which follows from the “Law of Demand” and “Law of Supply”
  - self enforcing – at higher prices there is downward pressure on price; at lower prices there is upward pressure on price – therefore if we are at some other price, we will be pushed toward the equilibrium price

• **Increase in Demand** – a change in demand consistent with consumers being more willing to purchase the good, in that at every price the new quantity demanded is greater than the previous quantity demanded (visually, such a change is illustrated as a “rightward shift” of the demand curve).

• **Decrease in Demand** – a change in demand consistent with consumers being less willing to purchase the good, in that at every price the new quantity demanded is less than the previous quantity demanded (visually, such a change is illustrated as a “leftward shift” of the demand curve).

• **Increase in Supply** – a change in supply consistent with firms being more willing to sell the good, in that at every price the new quantity supplied is greater than the previous quantity supplied (visually, such a change is illustrated as a “rightward shift” of the supply curve).

• **Decrease in Supply** – a change in supply consistent with firms being less willing to sell the good, in that at every price the new quantity supplied is less than the previous quantity supplied (visually, such a change is illustrated as a “leftward shift” of the supply curve).

• **Determinants of Demand** (factors that change demand) – changes in the following will result in an increase in demand: (1) a decrease in the price of a Complement Good; (2) an increase in the price of a Substitute Good; (3) an increase in income (for a Normal Good); (4) a decrease in income (for an Inferior Good); (5) an increased preference for the good by consumers; (6) an increase in “market size”; (7) an expectation of higher future prices. Changing any of these factors in “the opposite direction” would result in a decrease in demand.

• **Determinants of Supply** (factors that change supply) – changes in the following will result in an increase in supply: (1) a decrease in the cost of any factors of production used to produce the good; (2) an improvement in technology that reduces production costs; (3) a favorable realization of “natural events”; (4) an increase in “market size”; (5) an expectation of lower future prices. Changing any of these factors in “the opposite direction” would result in a decrease in supply.

• **Role of Profits in a free market economy** – profits serve as a vital “signaling device” in free market economies, directing resources to their most valuable use.

• **entrepreneur** – someone who organizes and manages a business, typically with considerable initiative and exposure to risk.

• **Role of the Entrepreneur** – profits can only serve as effective signals insofar as someone is able to recognize, appreciate, and respond according to different levels of profit.
• **Spontaneous Order** – the natural and undirected emergence of order out of seeming chaos
• three surprising insights from “I, Pencil”:
  ▪ no one person possesses the know-how to make a pencil
  ▪ most who helped make the pencil did not intend to or necessarily care to specifically make a pencil
  ▪ but yet, the entire process takes place (and valued goods, such as pencils, are produced) without any planner overseeing or dictating the process

Circular Flow of Economic Activity:

- **Households**
  - Supply of Labor, Land, Capital, and other factors of production
  - Income as Wages and Rents
  - Consumer Expenditures

- **Markets for “Factors of Production”** (labor, land, capital, etc.)
  - Labor, Land, Capital, and other factors of production hired
  - Wages and Rents paid

- **Firms**
  - Firm Revenues
  - Output of Finished Goods and Services

- **Markets for “Goods and Services”** (output of firms)
  - Consumption of Finished Goods and Services
Market Equilibrium – “What prices are stable?”

Is a “high price” of \( p_h = 50 \) stable? At this price: buyers are willing and able to buy 15 units, while sellers are willing and able to sell 75 units. Since quantity supplied is greater than quantity demanded, there is excess supply. 60 of the sellers who would like to sell the item for $50 are not able to find buyers – each of these sellers would have an incentive to instead accept $49.99 (and sell the item for one cent less, as opposed to not selling the item) => downward pressure on price. Any price for which there is excess supply is not stable.

Is a “low price” of \( p_L = 20 \) stable? At this price: buyers are willing and able to purchase 105 units, while sellers are willing and able to sell 40 units. Since quantity demanded is greater than quantity supplied, there is excess demand. 65 of the buyers who would like to purchase the item for $20 are not able to find sellers – each of these buyers would have an incentive to instead offer $20.01 (and buy the item for one cent more, as opposed to not buying the item) => upward pressure on price. Any price for which there is excess demand is not stable.

Only “stable price” is at the intersection of the demand curve and the supply curve. Only at this price do we have (quantity demanded)=(quantity supplied). At \( p^* = 30 \): buyers are willing and able to purchase 55 units and sellers are willing and able to purchase 55 units (no “excess demand”; no “excess supply”). Further, all those potential buyers that don’t make a purchase at this price do not want to make a purchase at this price. Likewise, all those potential sellers that don’t make a sale at this price do not want to make a sale at this price. Nobody has anything to gain by changing their behavior => Stable Outcome. Market Equilibrium occurs at the intersection of supply and demand: “equilibrium price” is \( p^* = 30 \) and “equilibrium quantity” is \( q^* = 55 \).
Problem:

1. The graph illustrates the Supply for peanuts in 2015 and 2016. Answer the following questions based upon the information conveyed in this graph.

1A. Is the change in Supply between 2015 and 2016 illustrated above an increase or decrease in Supply? Explain.

1B. Which of the following is the most plausible explanation for the change in Supply illustrated above: “consumer income increased between 2015 and 2016, and peanuts are a normal good”; “the wage rate for unskilled labor in the agricultural sector increased between 2015 and 2016”; “the realized weather in 2016 was better for growing peanuts than that which was realized in 2015.” Explain.

1C. As a result of the change in Supply illustrated above (assuming there was no change in Demand between 2015 and 2016), how would the equilibrium price and equilibrium quantity of peanuts in 2016 compare to the corresponding values from 2015? Explain.

Multiple Choice questions:

- Questions 1-4, 6, 8-12, 14-15, 17-18, and 20-22 on pages 110-113 in textbook (answers on page 350)
**Additional Multiple Choice Questions:**

1. One of the principle functions of money is that it serves as a “unit of account.” This role could be described by recognizing that money
   A. is an asset used as payment when purchasing goods and services.
   B. is an asset that can be used as a means to hold wealth.
   C. is used as a basic unit of measuring economic activity.
   D. None of the above answers are correct.

2. During the last several decades, health officials in the United States have argued that eating too much beef might be harmful to humans. As a result, there has been a significant decrease in the amount of beef produced. Which of the following best explains this decrease in production?
   A. Government officials ordered beef producers to produce relatively less beef (out of concern for consumer health).
   B. Animal Rights Activists have made it difficult for both buyers and sellers of beef to freely trade the good in free markets.
   C. Beef producers (whose primary concern is the health of their customers) decided to produce relatively less beef.
   D. Individual consumers (concerned about their own health) decreased their demand for beef (resulting in a decrease in both the equilibrium price and equilibrium quantity of beef).

3. The “Law of Demand” implies that
   A. if the price of a good increases, then the quantity demanded of the good will decrease.
   B. demand curves should be “downward sloping.”
   C. demand for a good will increase if consumers realize an increase in income.
   D. More than one (perhaps all) of the above answers is correct.

4. Consider the market for oranges. If there is “excess supply” at a price of $2.35, then the equilibrium price must be:
   A. above $2.35.
   B. exactly equal to $2.35.
   C. below $2.35.
   D. None of the above answers are correct (since more information is needed to answer this question).

5. Last weekend Brenda won $900 at a casino in Biloxi, Mississippi. She decided to use the money to purchase a new TV from Walmart. She was able to use the money to acquire the new TV since money serves as a
   A. contract.
   B. medium of exchange.
   C. store of value.
   D. unit of account.
6. ______________ wrote the essay “I, Pencil,” which illustrates the importance of the notion of spontaneous order in a market system.
   A. Adam Smith
   B. Karl Marx
   C. Leonard Read
   D. Joseph Schumpeter

7. In a “free market economy” profits refer to the “gain” that a buyer gets from purchasing a good/service. 
   A. refer to the “gain” that a buyer gets from purchasing a good/service.
   B. serve as a “signaling device,” directing resources to their most valued uses.
   C. are only earned by firms who exploit workers.
   D. None of the above answers are correct.

8. An increase in income will result in an increase in demand for ______________.
   A. a normal good
   B. an inferior good
   C. a substitute good
   D. a complementary good

9. Privately owned enterprises in a free market economy have a primary goal of 
   A. exploiting workers.
   B. earning as large of a profit as possible.
   C. tricking consumers into thinking that they are “environmentally conscious.”
   D. More than one (perhaps all) of the above answers is correct.

10. ______________ refers to the natural and undirected emergence of order out of chaos.
    A. Command Planning
    B. Excess Demand
    C. Spontaneous Order
    D. An increase in Demand

11. The height of the demand curve at a particular quantity illustrates
    A. seller’s reservation price for that unit.
    B. buyer’s reservation price for that unit.
    C. magnitude of excess demand at the market equilibrium.
    D. spontaneous order.
Answer to Problem:

1A. The change in supply that is illustrated is a “leftward shift” of the initial supply curve. This is a “decrease in supply,” which is a change in supply consistent with firms being less willing to sell the good (in that at every price the new quantity supplied is smaller than the previous quantity supplied).

1B. As previously argued, the observed change in supply is a decrease in supply. A change in consumer income would potentially change demand, not change supply (so, “consumer income increased between 2015 and 2016, and peanuts are a normal good” is not a plausible explanation). A favorable realization of random or natural events would potentially lead to an increase in supply (so, “the realized weather in 2016 was better for growing peanuts than that which was realized in 2015” is not a plausible explanation). An increase in the price of a factor of production will lead to a decrease in supply. Therefore, “the wage rate for unskilled labor in the agricultural sector increased between 2015 and 2016” is a quite plausible explanation.

1C. Since demand is a downward sloping curve, a decrease in supply (whatever the cause) will lead to a decrease in equilibrium quantity and an increase in equilibrium price.

Answers to Additional Multiple Choice Questions:

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