Review for First Exam

1. A country produces two goods, text books and crayons. Draw a PPF for this country displaying increasing opportunity costs of production. What explains increasing opportunity costs? Label the following points on your curve.
   - Label as Q a point of efficiency. Define efficiency in this setting.
   - Label as X a point which is feasible but inefficient.
   - Label as Y a point which is unattainable.
   - Show a point where the opportunity cost of producing text books is at its lowest. At its highest.
   - Show a point where the opportunity cost of producing crayons is at its lowest. At its highest.
   Assume there is technical progress only in the production of crayons. Show graphically this change in the PPF. Show the PPF before and after the change.

2. You know the following information about two workers, Mutt and Jeff. Each spends 8 hours a day working in the production of two goods, beach balls, (BB), and potato chips, (PC). The number of units each can produce in one hour is as follows:

<table>
<thead>
<tr>
<th></th>
<th>BB</th>
<th>PC</th>
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</thead>
<tbody>
<tr>
<td>Mutt</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Jeff</td>
<td>1</td>
<td>3</td>
</tr>
</tbody>
</table>

- Draw a separate production possibility frontier for each worker. Show the value at each intercept.
- Do the PPFs display Increasing Opportunity Costs? Why or why not?
- Who has the absolute advantage in the production of BBs? Who has the absolute advantage in the production of PCs?
- Who has the comparative advantage in the production of BBs? In the production of PCs?
- If Mutt and Jeff decide that both goods should be produced, and each will produce one of the goods, who will produce what? Can both Mutt and Jeff be made better off by specialization and trade? Explain.
- Show a potential consumption bundle for each person if they agree to trade 10 PCs for 4 BBs.

3. List a number of factors that would shift the demand curve for apples. Show one of these changes in a graph. Will a change in the price of apples shift the demand curve for apples? If not, what does change when price changes?

4. List a number of factors that would shift the supply curve for coal. Show one of these changes in a graph. Will a change in the price of coal shift the supply curve for coal? If not, what does change when price changes?

5. Use a correctly labeled graph to show separately the effects the following scenarios will have in the market for airline tickets. Show what happens to the equilibrium price and quantity. Start each problem with an equilibrium price of $400 per ticket and an equilibrium quantity of 10,000 tickets.
   a. Terrorists have increased their threat to bomb U.S. airlines. This threat is taken seriously by many travelers. At the same time the price of airline fuel increases by 30%.
   b. High-speed rail service becomes available in the US.

6. Give an example of a normative economic statement. Give an example of a positive economic statement.

7. What are the three fundamental questions every economy must answer?
8. Use a properly labeled graph to show the market for unskilled labor with an equilibrium wage of \( W_0 \) and level of employment of \( L_0 \). Currently there is no government intervention in the market for labor. Legislators have been concerned about the low wages of this group and are thinking about imposing a binding price floor on wages.

a. Assume they impose a binding price floor of \( W \) in this market (\( W > W_0 \)). Label employment after this legislation as \( L \).

b. What group of workers is clearly made better off by this legislation? Explain.

c. What group of workers is clearly made worse off by this legislation? Explain.

d. In the graph above, shade in an area that describes the deadweight loss of this policy. Explain how you found the deadweight loss.

e. We often discuss the deadweight loss in terms of not allowing all of the gains from trade to take place. Explain.

9. In a properly labeled graph of the market for ice cream start with a market equilibrium at an equilibrium price \( P_0 \) and quantity \( Q_0 \).

A. Show the effects of the government imposing a price ceiling in the market for ice cream. Assume this is a binding constraint (price now < \( P_0 \)). Label the quantity of ice cream consumed \( IC_c \). Be sure to identify the area of deadweight loss.

B. Show the effects of the government imposing a price floor in the market for ice cream. Assume this is a binding constraint. Label the quantity of ice cream consumed \( IC_c \). Be sure to identify the area of deadweight loss.

C. For each of the above scenarios, discuss how all of the gains from trade have not been exhausted.

10. For the market of each product below, make a supply-demand graph showing the shift of the curve(s), and indicate what has happened to the four elements of the graph: demand \( D \), supply \( S \), price \( P \), and quantity \( Q \) (demanded and supplied, which are equal in equilibrium). Use a (+), (-), (0) for no change, or (?) for indeterminate. Under these symbols, state which determinant of demand or supply (ie, income, tastes, cost of production, etc) has caused each curve to shift.

<table>
<thead>
<tr>
<th>Market</th>
<th>Event</th>
<th>( D )</th>
<th>( S )</th>
<th>( P )</th>
<th>( Q )</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Gasoline</td>
<td>Crude oil prices rise</td>
<td></td>
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<td></td>
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<td>(+)</td>
<td>(+)</td>
<td>(+)</td>
<td>(+)</td>
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<tr>
<td>b. SUVs</td>
<td>Crude oil prices rise</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(+)</td>
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</tbody>
</table>
c. Orange juice

Orange juice

D S P Q

Hurricane injures Florida oranges

D S P Q

d. Apple juice

Apple juice

D S P Q

Hurricane injures Florida oranges

D S P Q

e. Expensive California wine

Expensive California wine

D S P Q

Fire in wine-producing Sonoma county destroys vines, and tax cut increases household incomes

P Q D S

f. Cell phones

Cell phones

D S P Q

New technology makes cells phones very cheap, but laws are passed making it a illegal to use them while driving a car.
f. **beef in America**

Mad cow disease discovered in Canadian cows makes consumers afraid of beef, and imports from Canada are banned.

D S P Q

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g. **beef in America**

Imports from Canada are banned, and the Atkins diet (meat-based) becomes popular.

D S P Q

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11. Adam Smith argued that self-interest guides an economy, like an “invisible hand,” toward efficient allocations of resources. However, we discussed several reasons why the government might need to intervene.

- List two of those reasons. Explain why intervention is needed for efficiency.
- Other than efficiency, what else should policy makers be interested in?

12. The company you manage decided to develop a new product. At this point, your firm has already invested $5 million in the development of this product, but more funds are needed before the product can be released. A new report (which you believe to be factual) has estimated revenue of this new product to only total $4 million.

Discuss the merits of the following statement. “We should continue production, because if we do not, we have wasted our $5 million.”

Explain carefully what should be considered when deciding whether to continue investing in this project.