A. Multiple Choice (40 pts) Print ONE answer (A, B, C, D or E) neatly ON the exam in the space provided.

B. The central economic problem is that:
A. There are too many resources in our economy and we may produce goods for which there is no need.
B. Every use of resources means that other uses can’t be met. We want to save resources for the use that is most valuable.
C. Prices for the things we want are often too high.
D. Prices for the things we want are often too low.
E. Goods and services are sometimes not as valuable as the resources used to produce them.

B. Why did we say in class that it is not useful to say that medical care is a “need”?
A. Because medical care is a luxury that we can live without.
B. Because there are substitutes for medical care.
C. Because the price for medical care is very low.
D. Because the cost of providing medical care is very low.
E. Because the demand for medical care is very low.

E. What will make the supply of tuna fish increase?
A. A rise in the demand for tuna fish.
B. A rise in the price of tuna fish.
C. An increase in the cost of catching tuna fish.
D. A decrease in the price of tuna fish.
E. A decrease in the cost of catching tuna fish.

C. Adam can catch 3 fish or gather 6 coconuts. Betty can catch 5 fish or gather 2 coconuts. Carl can catch 8 fish or gather 6 fish. Who has the cheapest fish?
A. Adam because he can only catch 3 fish.
B. Adam because every fish only costs one half of a coconut.
C. Betty because every fish costs 0.4 coconuts.
D. Betty because every fish costs 2.5 fish.
E. Carl because he can catch the most fish.

C. What happens to the market for a good if scientists discover a cheaper way to produce a substitute?
A. Demand, equilibrium price, and quantity exchanged will all rise.
B. Supply, equilibrium price, and quantity exchanged will all fall.
C. Demand will fall and the equilibrium price will fall.
D. Equilibrium price will rise causing demand to fall and supply to rise.
E. Supply and quantity exchanged will rise, but equilibrium price will fall.

C. Which is the difference between a ‘scarcity’ and a ‘shortage’?
A. Neither would exist if money prices were flexible and allowed to ration goods.
B. Both are unavoidable when we let money prices ration goods.
C. Scarcity occurs for most goods that we want but we don’t have to have shortages if prices are flexible.
D. Shortages are not avoidable but scarcity can be eliminated if prices adjust.
E. If prices are allowed to rise high enough we can make any scarce good have a shortage.

B. Which of the following reasons can cause an increase in gains from trade from a price floor?
A. The sellers have market power and are price searching.
B. Consumers are confused and their true demand for a product is less than how they act.
C. The demand and supply cross at a price above the equilibrium level.
D. There is a surplus of the good.
E. The government cares only about the change in CS to their friends and not about the effect on others.
8. **C** Which company is likely to be a 'price searcher'?
   - A company that faces lots of competition from other companies.
   - B. A large company which has sales of many millions of dollars.
   - C. A company that knows they will keep most of their customers even if they raise prices quite a bit.
   - D. All of the above.
   - E. None of the above.

9. **D** Why is marginal revenue less than price for price searchers?
   - A. Because they have demand curves that are very flat.
   - B. Because there are costs whenever they expand (or reduce) production.
   - C. Because they enjoy special laws which keeps out competitors.
   - D. Because they must lower their price for former customers when they try to increase quantity sold.
   - E. Because they are allowed to charge every customer a different price.

10. **C** Why do some economists believe that breaking up large companies can harm the economy?
    - A. Because large companies have more market power which cause more gains from trade for an economy.
    - B. Because large companies are more likely to use collusion which helps the economy.
    - C. Because companies that are large may become large by serving customers well.
    - D. Because static competition (measured with concentration ratios) is a good way to tell how well the economy works.
    - E. Because large companies are more likely to use predatory pricing.

B. Demand and Supply (39 pts) SHOW WORK CLEARLY FOR PARTIAL CREDIT!!

**PRICE:**

<table>
<thead>
<tr>
<th>15</th>
<th>20</th>
<th>30</th>
<th>60</th>
<th>75</th>
<th>etc.,</th>
<th>( \frac{\Delta Q^d}{\Delta P} = \frac{-25}{15} = \frac{-5}{3} )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Desired Consumption:</td>
<td>21</td>
<td>16</td>
<td>6</td>
<td>1</td>
<td>etc.,</td>
<td>( \frac{\Delta Q^d}{\Delta P} = \frac{24}{(y+2)P} = \frac{24}{5} )</td>
</tr>
<tr>
<td>Available Production:</td>
<td>5</td>
<td>8</td>
<td>14</td>
<td>17</td>
<td>etc.,</td>
<td>( \frac{\Delta Q^s}{\Delta P} = \frac{3}{5} )</td>
</tr>
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What is the demand equation (Qd=f(P))?

What is the supply equation Qs=f(P)?

What is the consumer surplus at equilibrium?

What is the "cost" at equilibrium?

Suppose the government brings in a price floor at $60. What is quantity traded?

\[ P = 78 - 3Q \]
\[ MC = 78 - 6(Q) = 30 \]
\[ MR = 78 - 6Q \]
\[ MC = 9(Q) = 10 \]
\[ MC = 9 - 10 \]
\[ MR = 78 - 6Q \]

What is the marginal revenue curve (MR=f(Q))?

What is the marginal cost curve (MC=f(Q))?

What is the Q that maximizes producer surplus for a monopoly?

What is the P that maximizes producer surplus for a monopoly?

\[ TR = 5Y(8) = 432 \]
\[ MC = \frac{\Delta Q}{\Delta P} = \frac{90}{30} = 3 \]
\[ MC = 9 \]

What is the producer surplus that the monopoly will earn?

What is the waste (dead weight loss) caused by the monopoly?
C. Demand/Supply (6 pts) Draw a rough demand/supply diagram showing equilibrium in the market for apples. Then show how the curves will change (Use arrows to show direction of change). Then circle the correct answer to the following four questions:

People in our town like to eat fruit. What happens to the market for apples if scientists discover a cheaper way to grow pears (a different fruit)?

**Diagram:**
- **Demand will shift:** RIGHT/SHIFT LEFT/NOT SHIFT
- **Supply will shift:** RIGHT/SHIFT LEFT/NOT SHIFT
- **Equilibrium price will:** RISE/FALL/UNCERTAIN CHANGE
- **Equilibrium quantity will:** RISE/FALL/UNCERTAIN CHANGE

C. Short Essay (15 pts) Maximum 200 words! A diagram will help your answer. Make sure you explain your diagram in your answer.

The elevators at Columbia College seem very busy (especially when there is a change in classes). Some people seem to use the elevators for trips that aren’t very important (i.e. to ride only one floor.) Sometimes there might be a very important reason to ride an elevator (you are late for an examination) but you have to wait a long time.

a. Are elevator trips a Columbia College ‘scarce’? Explain.

b. Why do you think there is dead weight loss caused by our current use of elevators? Explain.

c. Can you suggest a solution (i.e. some idea from our class) for this problem? Would you support this “solution”? Explain.

- a 5 scarcity/meanings conflict/allocate by waiting
- b 5 deadweight/loss meanig elevator filled with unimportant trips while important trips are waiting
- c 5 why we have prices in economics transaction costs? Is it socially acceptable?