ECONOMICS 101        MIDTERM EXAMINATION A
COLUMBIA COLLEGE        Paul Geddes

NAME:  ANSWERS 20 October 2017

A. Multiple Choice (40 pts)  Print A, B, C, D or E for the best (only one) of the available answers in the space below.

1. D  In a typical college classroom, students find seats without much confusion or disorder. This is because:
   A. Classroom seats are not scarce.
   B. Students act randomly, have no plans about seating and therefore there is no conflict.
   C. Since all have paid tuition, the marginal cost of getting a seat is zero.
   D. Culture has taught us and students usually act as if seats belong for the class hour to the first occupier.
   E. Students purposefully create their own seating charts to make instructors happier.

2. C  Which of the following will cause the demand for orange juice to shift to the left?
   A. An increase in the demand for land that increases the cost of growing oranges.
   B. A permanent increase in the price of orange juice.
   C. A permanent decrease in the price of other fruit juices.
   D. An increase in agricultural technology that decreases the cost of growing oranges.
   E. A decrease in the price of orange juice.

3. D  Demand curves are usually drawn with negative slopes because:
   A. Lower prices encourage owners of resources to find other ways to use their resources.
   B. Higher prices cause producers to produce more of the good with a higher price.
   C. Lower prices give users an incentive to look for substitutes.
   D. When the price is higher, consumers would rather keep money for other higher valued uses.
   E. Higher prices cause consumers to buy more of any good.

4. C  What is the "cost" of sleeping late on the day of your final economics exam and missing the first half hour of your exam?
   A. Zero, because the tuition you paid to Columbia College is not refundable.
   B. About 35% of the tuition you paid for the course because the final accounts for 35% of your mark.
   C. The cost will be the marks you miss because you didn't have enough time to finish the exam.
   D. The enjoyment you got from sleeping late.
   E. About $8 since this is what you could earn in a half hour at your job.

5. C  What should we call the area under the demand curve of the amount we buy?
   A. The consumer surplus.
   B. The consumer expenditure.
   C. The total value of the quantity produced.
   D. The total gains from trade.
   E. The cost of producing this quantity.

6. E  In one day Anna can pick 5 baskets of berries or catch 8 fish. Benny can pick 6 baskets of berries or catch 4 fish. Cindy can pick one basket of berries or catch 3 fish per day.
   A. Anna has the comparative advantage berries but not in fish.
   B. Anna has the comparative advantage in fish but not in berries.
   C. Benny has the comparative advantage in fish but not in berries.
   D. Cindy has the comparative advantage in berries but not in fish.
   E. Cindy has the comparative advantage in fish but not in berries.

7. B  Which of the following is most likely to be observed in a community with rent control?
   A. Landlords will do a better job of property maintenance.
   B. People moving into the community will have difficulty finding an apartment.
   C. Poor people will be able to find adequate housing.
   D. Tenants will choose to live in smaller apartments.
   E. Those with an urgent need for housing will get housing ahead of those with less urgent needs.
8. According to "public interest theory" what is a good reason to bring in a price floor for the following products?
   A. Healthy food because people are not buying enough healthy food.
   B. Electricity because companies selling electricity have market power.
   C. Gasoline because drivers aren't paying for the pollution they cause.
   D. Education because students don't always understand how valuable their increased productivity is to their country.
   E. Low skilled labor because we want companies to hire more workers.

9. "Collusion" is illegal in Canada. The usual reason given for making it illegal is:
   A. We don't want companies to sell their products at prices below costs.
   B. We want companies to create "trusts" so that there isn't too much destructive competition.
   C. We don't want large companies to buy up small companies just to close them down.
   D. We don't want companies to make market sharing agreements with each other.
   E. We don't want companies to sell the same product to different customers at different prices.

10. One surprising effect of "deregulating" the airline industry has been:
     A. Large airlines have grown larger by buying up many small airlines.
     B. Airlines are offering fewer flights to popular destinations and fewer flights at popular times.
     C. Airlines don't advertise as much as they used to.
     D. Prices have gone up since airlines don't have to worry about other airlines "stealing" their customers.
     E. There has been a reduction in costs (such as lower wages for pilots and attendants).

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

<table>
<thead>
<tr>
<th>PRICE</th>
<th>20</th>
<th>40</th>
<th>60</th>
<th>etc.,</th>
</tr>
</thead>
<tbody>
<tr>
<td>Qd</td>
<td>6</td>
<td>7</td>
<td>2</td>
<td>etc.,</td>
</tr>
<tr>
<td>Qs</td>
<td>3</td>
<td>7</td>
<td>11</td>
<td>etc.,</td>
</tr>
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1. \( Qd = 8 - \frac{1}{2}p \)
2. \( Qs = 1 + \sqrt{5}p \)

3. \( Qs = \begin{cases} \frac{60}{2} = 30 & \text{if } \frac{60}{2} \geq 45 \\ \frac{45}{2} + \frac{150}{7} & \text{if } \frac{60}{2} < 45 \end{cases} \)

4. \( \min \int 4 + \frac{7}{2} = 4 \)

5. \( \int 4 + \frac{7}{2} = 100 \)

6. \( \int \left( \frac{7}{2} \right) = -45 \)

7. At this price floor, what is the producer surplus?
   \( \Delta = 100 - 45 = 55 \)

8. \( MR = 50 - 20Q \)
9. \( MC = 5 + 5Q \)
10. \( Q = 3 \)
11. \( P = 5Q \)
12. \( \int 50 = 112.5 \)
13. \( \int 30 = -30 \)

Calculate the CHANGE in consumer surplus caused by this price floor.
C. Comparative Statics (6 pts) Draw a quick diagram and show how the demand or supply curves (or both) will shift and what will happen to equilibrium price and quantity. Use tiny arrows to show the direction of change. Then circle the correct choice in the following sentences.

People who eat sushi want wasabi (a Japanese hot mustard) to go with it. What happens to the market for sushi if there is bad weather causes wasabi to be much more expensive than usual?

Demand will shift: RIGHT/LEFT/NO SHIFT
Supply will shift: RIGHT/LEFT/NO SHIFT
Equilibrium price will RISE/FALL/UNCERTAIN CHANGE
Equilibrium quantity will RISE/FALL/UNCERTAIN CHANGE

D. Short Essay (15 pts) Use a diagram to illustrate your answer. Then explain your diagram. Only a paragraph or two is necessary.

The average electricity bill for a small apartment in Vancouver is about $25 a month. Since BC Hydro is owned by the government, and we have a new government which says they want to help renters, do you think it would be a good idea for our government to lower the average electricity bill to $20 a month? Why or why not?

Adam Smith → market is correct, price is communication between buyers and sellers so owners of resources can learn what consumers want the most.

If government pushes the price below equilibrium, it will cause deadweight loss.

Public Interest → market has failed for some reason (market power of BC Hydro). Gov't can make economy more efficient by eliminating the deadweight loss (above) and pushing price to where it is most efficient ($20).