Surname: KEY

First name: _____

Student number: _____

ECO 1104B INTRODUCTION TO MICROECONOMICS

First Midterm Examination

David Gray Fall 2014

INSTRUCTIONS

a) The allotted time is 40 minutes. This examination counts for 20 % of your course grade. It consists of short answer questions and problems, and you should answer all of them. There are a total of 40 points.

b) You may not consult with any written materials whatsoever, including other students' papers, and no conversation is permitted while the examination is in progress. Furthermore, no palm pilots or programmable calculators are permitted. Any contravention of these rules will be treated as an infraction to the honour code of the university.

c) I anticipate that some of you will be pressed for time, so please pace yourself according to the point totals that are given for each item.

d) All of the questions which follow are straightforward, and most can be answered in two sentences. The responses that I hope to elicit have been repeated by me several times in class. Please take a minute to concentrate on the question being asked, as opposed to writing down everything which immediately comes to your mind about a certain topic. I have tried to pose the questions in such a way that you focus correctly.

e) Write only in the space provided. For most of the questions that follow, you should write in sentences.

f) Turn off all cellular telephones

PART A: INTRODUCTORY MATERIAL (12 points) These 4 questions were worth 3 points each.

1)

a) Define the term opportunity cost and explain the relationship between scarcity, choices, and opportunity costs.

It is the cost of the highest foregone alternative. Due to the presence of scarcity, economic decision makers (households, consumers, firms, governments, NGOs, workers, investors, and other input factor suppliers) are forced to make choices, and every choice incurs an opportunity cost. You did not have to write this, but it is true that if there is no opportunity cost, then we are talking about a "free good", but "there ain't no such thing as a free good" in economics.

b) What are some the reasons why the so-called 'right-wing, free-market' types like the market based, capitalist system? Two reasons will suffice.

- **Highly dynamic and flexible, as it adjusts quickly to changes in the economic environment.**
- **Efficient, in the surpluses and shortages that do emerge are quickly alleviated. Given the challenge of scarcity, output is maximized given the available inputs. It provides the appropriate incentives.**
- **It promotes economic freedom in that most (but perhaps not all) economic decision makers (listed above) can make economic choices on their own.**
- **Some but not all adherents of this view also admire the inegalitarian distribution of the product, claiming that it is virtuous that those who contribute the most (least) to the production process tend to receive the highest (lowest) remuneration (You did not have to write that point.)**

One might mention the decentralized nature of the coordination process. That is indeed an attribute of the system, but that is not really why believers in the system like it so much.

c) What is the essence of Adam Smith's invisible hand notion?

The idea that greedy consumers and greedy producers can consumer, produce, and interact in such a fashion that economic well-being is promoted rather than undermined. The invisible hand essentially harnesses the greedy urges and re-directs them so that the economic outcomes benefit most people. My greed offsets your greed when we make a deal.

d) Any economy, from the most primitive to the most developed, has to face three central coordination tasks. Name them and provide a little bit of description.

- **What goods and services should be produced, and in what quantities? In other words, how should the scarce inputs be allocated?**
- **How should this output be produced from the available inputs (i.e the technology**

of production)

- **For whom are the goods and services produced? Given the final production bundle, how should it be distributed among the consumers in the economy?**

PART B: PRODUCTION AND EXCHANGE (12 points)

2. These questions concern the production possibilities frontier, also known as the transformation curve.

These questions were worth two points each.

a) Explain how a country might be able to expand its production possibilities frontier in the future.

By shifting the composition of output away from consumption goods towards capital goods. By so doing, the productive capacity of the economy will be increased. This can also occur as a result of a technological advance that raises productivity levels. Recall that productivity = output / input.

b) Assuming that the country is successful in expanding it, what would be the economic significance of that event?

Production Combinations that were once unattainable given the available land, labour, and capital inputs are not feasible. It implies an improvement in living standards.

3. This problem is quite similar to one that is in the study guide (only the numbers have been changed). The following table shows the units of output a worker can produce per month in Australia and Korea.

	Food	Electronics
Australia	40	10
Korea	4	2

a) Australia has the comparative advantage in the production of food. Demonstrate why that is the case. It necessarily follows that Korea has the comparative advantage in the production of electronics.

There are three ways to address this question. I will go through all of them in no particular order. First, calculate the opportunity cost for each country of producing one more unit of food in terms of electronics foregone. For Australia, divide the row by 40 to generate the values of 1 and 0.25. For Korea, divide the row by 4 to generate the values of 1 and 0.5. This opportunity cost is lower for Australia, and so it has the comparative advantage in the production of food. Alternatively, calculate the opportunity cost for each country of producing one more unit of electronics in terms of food foregone. For Australia, divide the row by 10 to generate the values of 4 and 1. For Korea, divide the row by 2 to generate the values of 2 and 1. This opportunity cost is lower for Korea, and so it has the comparative advantage in the production of electronics. Alternatively, note that Australia can produce food four times as efficiently as it produces electronics, while Korea can produce food twice as efficiently as it produces electronics. This implies that Australia has the comparative advantage in the production of food.

b) Whether or not you have demonstrated that result above, explain what the countries should do next.

Australia should allocate most or all of its productive resources to producing food and exporting a lot of it. It should use the proceeds to purchase imports of electronics from Korea. Korea should do the opposite.

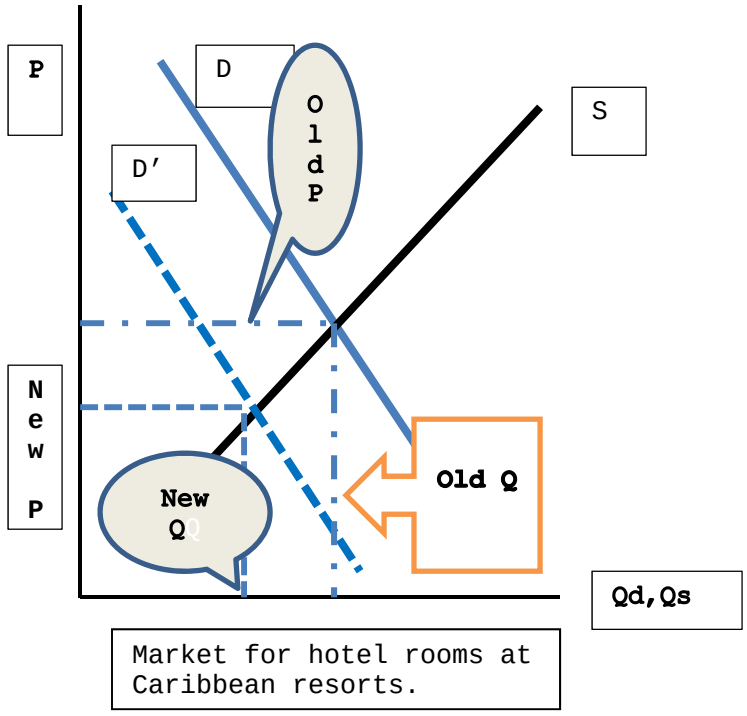
c) According to the theory of trade, why are countries better off trading than they would be in the state of autarky? You should mention the transformation curve in your analysis, but don't draw one. Two sentences will suffice.

It allows both countries to consume at points beyond their production possibilities frontiers. In the rate of autarky, they cannot do so. It allows for a small rise in living standards. Do not confuse this question with a related one: what is the source of the gains from trade? The answer to that question is that the rate of tradeoff in the free-trade regime is more favourable than is the case in autarky.

PART C Supply and Demand Analysis (16 points)

4. This problem is extracted from the textbook. Consider the market for hotel rooms in Caribbean resorts, which are very popular among Canadians from Quebec and Ontario during the high season (i.e. the winter months). What would we expect to occur in this particular market when the weather in Canada turns warm in the summer months? Based on the supply and demand framework and using the axes below, model this particular change. Pay attention to the following details: (6 points)

a) Label all curves and axes
b) Indicate which curve(s) shift(s), if any, and explain <u>verbally</u> why.
c) Determine what occurs to equilibrium price and quantity.



Because pleasant, hot weather can be experienced during the summer in Canada, consumer substitute vacations in Canada for vacations in the Caribbean. At each possible price, quantity demanded is lower is lower in the summer than it was in the winter, and the demand curve shifts to the left. Both equilibrium price and quantity fall.

6. Explain what the fundamental purpose of the supply and demand model is. In other words, how does it fit into the outline of microeconomics that I went over during the overview part of the course. This can be answered in one sentence. I went over this in class. (3 points)

The first central coordination task that any economy must face is to determine what goods and services will be produced and in what quantities. That corresponds to the equilibrium quantity generated by the model.

7. Suppose that the price of hockey tickets for one game at your school is determined by market forces. Currently, the demand and supply schedules are as follows: (7 points)

Price	quantity demanded	quantity supplied
$ 4	10,000	8,000
8	8,000	8,000
12	6,000	8,000
16	4,000	8,000
20	2,000	8,000

a) Determine the equilibrium price and quantity, and explain your answer. This involves writing down words. Writing a complete sentence would be even better.

At a price of $ 8 per unit, quantity demanded = quantity supplied. The market is in a state of balance only at that price.

b) Suppose that the transactions price is set at $ 20 a game. What would we expect to happen in this market? Explain your answer.

There would be a situation of excess quantity supplied of magnitude 6,000 seats per game (8,000 – 2,000), or a surplus. We would expect for downward pressure on the price to emerge, and before long many tickets would be sold for much less than that price. Quantity supplied is fixed at 8,000 seats irrespective of price. Note that this supply curve is totally inelastic, which you did not have to know for this exam.

c) Suppose that the demand schedule is revised as follows:

Price	quantity demanded
$ 4	14,000
8	11,000
12	8,000
16	5,000
20	3,000

What is the economic interpretation of this event? Is it a rise in demand, a fall in demand, a rise in supply, a fall in supply, or none of the above? What would we expect to happen to equilibrium price and quantity demanded, if anything?

This constitutes an increase in demand. At each possible price, quantity demanded is higher. All other factors held constant, equilibrium price should rise and eventually settle at $ 12.