

## ECO 103, Winter 2015, Exam #1

**Name:**

**Instructions:** Answer all parts of all questions. You have 80 minutes to complete the exam. This exam is open note. You are welcome to use any written materials that you might find helpful. Calculators, but no other electronic devices, are allowed. Here are some things to keep in mind.

- i. Explain all of your answers. Unsupported answers will receive little or no credit.
- ii. On true/false questions, I only care about the quality of your explanation. Simply writing “true” or “false” will yield no credit.
- iii. Avoid extensive irrelevance, this will also cost you points. Your goal should be to provide clear and concise explanations.
- iv. It is more important to demonstrate that you understand the correct method. Minor math errors will result in only minor deductions.
- v. All parts of all questions are worth the same amount.
- vi. Many questions ask you about a deviation from something that we did in class. If you simply copy down what we did in class, I will award no credit.

## 1. Assorted Questions

a. Chad says that “oil prices have decreased because people are starting to use more solar power.”

Zoe says “oil prices have declined because new sources of oil have been discovered.” How could empirical economics be used to resolve this disagreement?

b. Suppose I have \$100 to distribute between Tonya and Nancy. I give Nancy \$90 and Tonya \$10. Provide a scenario where this allocation is not Pareto efficient.

c. It is often said that good macroeconomics requires strong “microeconomic foundations.” It is rarely said that good microeconomics requires strong “macroeconomic foundations.” Why is this?

d. What is the major difference between the fields of economic growth and business cycles.

e. Is the following statement normative or positive: “Congress should raise taxes on upper income households?”

f. Which is probably more desirable: a 4% increase in GDP or a 4% increase in GDP growth?

g. Critique the following claim: “rents on apartments are much higher than they used to be. People can’t afford as much rental housing as they used to. Inflation is harming them.”

## 2. Microeconomics

Consider the market for Air Travel.

Table 1: The Market For Air Travel

Units	Total Utility	Marginal Cost
1	10	1
2	18	2
3	24	3
4	28	4
5	30	5

a. Plot the demand and supply curves.

b. Solve for the equilibrium quantity and price.

c. Suppose that jet fuel becomes more expensive. What are the effects on the equilibrium price and quantity?

d. Now suppose that access to rail travel becomes much better (more routes, more comfortable train cars, etc.) What are the effects on the equilibrium price and quantity?

How would the following assumptions affect the market for air travel:

e. Planes emit pollution that reduces air quality and make noise that bothers people living near airports.

f. Some airlines have poor safety records and consumers do not have the ability to identify which ones they are.

### 3. Macroeconomic Variables

Table 2: Economic Activity on Cow Planet

Good or Service	$Q_{14}$	$P_{14}$	$Q_{15}$	$P_{15}$
Imported Beer	2	2	3	1
Domestic Beer	8	1	4	3
Tractors	7	2	8	3
Tractor wheels	7	1	6	2

a. Calculate nominal GDP and consumption in 2014.



b. Using 2015 as the base year, calculate real GDP growth.

c. Using 2014 as the base year, calculate inflation using the GDP Deflator