ECONOMICS 151: Economic and Human Geography
SAMPLE MID-TERM EXAM

Please write your name and ID number above but only your ID number on the blue book and answer sheet. Answer all of the questions, and put all the answers in the blue book. The exam is designed to last 50 minutes; budget your time carefully. Good luck!

1. [9 minutes] For any six of the following, show that you understand what they mean.
   a. Crude birth rate.
   b. Focus (of an earthquake)
   c. Exogenic processes.
   d. Total fertility rate.
   e. Soil moisture recharge.
   f. Weathering.
   g. Carbon cycle.

2. [3 minutes] The concentration of carbon dioxide in the atmosphere is rising steadily. Why?

3. [1.5 minutes] Which answer is correct? The effect of water bodies on climate is to
   a. make them warmer throughout the year.
   b. make them warmer in the winter and cooler in the summer.
   c. make them cooler in the winter and warmer in the summer.
   d. make them cooler throughout the year.

4. [1.5 minutes] During the Northern Hemisphere’s summer solstice:
   a. the Sun shines directly overhead at the tropic of Cancer.
   b. the Sun shines directly overhead at the tropic of Capricorn.
   c. the Sun moves directly over the Arctic Circle.
   d. all places on Earth experience 12-hour days and 12-hour nights.

5. [3 minutes] Classify each of these rocks: basalt, sandstone, limestone.

6. [5 minutes] What does a population pyramid show? How can be determine, based on the shape of a population pyramid, whether fertility is high or low.

7. [9 minutes] Here is information on the water budgets, temperature (bars), and rainfall (line) at some location.
   a. Explain what each of the colored areas in the top diagram represents.
   b. At about what latitude is this location? Explain your reasoning.
Part III. Answer any two of the following questions. [9 minutes each]

8. Malthus.
Two hundred years ago, Thomas Malthus wrote that food supplies could not support humans into the near future. In what ways was his forecast incorrect?

Here is a weather map of the continental US for October 25, 2008. Imagine that you are a TV broadcaster, explaining the weather to your audience. Summarize the weather patterns shown here, being sure to show and explain the wind patterns, the fronts, and the extent of precipitation. The white lines are isobars.

10. Answer both parts:
   a. Describe the three types of rainfall—orographic, convective, and frontal. Explain where and when each of these are most likely to occur.
   b. The theory of continental drift explains what happens at the boundaries of tectonic plates. There are convergent faults, divergent faults, and transform faults. What are these and what are you likely to find at each?