**ECN-100: Homework Week 9: GDP, CPI, and Unemployment**

1) Calculate the following given these information about the economy in 1985, 1995, and 2000:

*1985 1995 2000*

*Nominal GDP (in $bil.) 4,213 …. 9,824.6*

*GDP Deflator (index, 1996=100) 73.7 98.1 ….*

*Real GDP (in 1996 bn dollars) …. 7,543.8 9,191.4*

*Population (in millions) 238 265 280*

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a) Nominal GDP in 1995:

b) Real GDP in 1985:

c) Rise in the price level (inflation) from 1985 to 2000:

d) Growth in real GDP from 1985 to 2000:

e) Per capita real GDP in 1985, 1995, 2000:

f) The growth in per capita real GDP from 1985 to 2000:

Use this formula to fill-in the blank:

GDP Deflator: (NGDP/RGDP) x 100 ;

Growth (of anything): (x2-x1)/x1 multiply 100%

Per Capita real GDP = real GDP / population

Inflation = (P2 – P1) / P1 x 100%; P = Price level, can be represented by GDP Deflator, or CPI, or PPI

2) GDP: What’s in and what’s out?

1. Coca-Cola builds a new plant in the US
2. Delta sells one of its airplanes to Korean Air
3. Ms. Moneybags buys an existing share of Disney
4. An American buys a bottle of French perfume (made in France) in Tulsa, OK
5. A Yakima, WA winery produces Chardonnay and sells it to a customer in Montreal, Canada

3) For each situation below, state whether the unemployment is frictional, structural or cyclical.

1. Jasmine has recently moved to Florida because she loves the warm climate there. Being new to the area, she will need to spend a few weeks looking for a new job.
2. As the United States becomes a more high-tech producer, labor-intensive factories relocate to low-wage countries. Factory workers lose their jobs and the unemployment rate rises.
3. As it becomes more acceptable for mothers to work, more women enter the labor market looking for work. The unemployment rate rises.
4. Foreign economies slow and demand fewer U.S. exports. Unemployment rate rises.

4) Sarah works for a firm that automatically adjusts her wages to the annual rate of inflation. Bob works for a firm that grants its employees a 5% annual income increase. Milt is retired and receives two payments: a pension payment that is fixed at $2,000 per month and a Social Security payment of $1,000 per month. The Social Security payment is indexed to the inflation rate in the community. Suppose the rate of inflation is 8% this year. Describe the effect of this inflation rate on Sarah, Bob, and Milt. Who is left in worse shape with this inflation? Does anyone end up better off despite this inflation rate? Explain your answer.