In this Assignment, you will deal with how to measure the cost of living and rate of unemployment in the economy.

Economists measure prices in the macroeconomy to generate a consumer price index (CPI) and, then employ the CPI to compare dollar figures from different points in time and to adjust interest rates for inflation. This helps measure the change in the cost of living. The labor market is also introduced, and enables us to see how full utilization of labor resources improves the level of production and the standard of living. Economists measure the performance of the labor market using unemployment statistics.

1. Assume there is a simple economy where people consume only two goods, food and clothing. Further assume that the market basket of goods used to compute the CPI consists of 100 units of food and 20 units of clothing.

| Yearly Price per Unit | Food | Clothing |
| --- | --- | --- |
| 2004 price per unit | $8 | $20 |
| 2005 price per unit | $12 | $40 |

1. Compute the percentage changes in the price of food and the percentage change in the price of clothing between 2004 and 2005.
2. Calculate the percentage change in the CPI between 2004 and 2005.
3. Do you think the CPI price changes affect all consumers in the economy to the same extent? If not, how do you determine who “wins” and who “loses” in this particular situation? Explain.
4. Calculate how much each of the following items is worth in terms of today's dollars using 180 as the price index for today.

a. In 1925, the CPI was 18 and the price of a movie ticket was $0.30.

b. In 1930, the CPI was 14 and a cook earned $20 a week.

c. In 1940, the CPI was 16 and a gallon of gas cost $0.20.

1. The table below uses data for three hypothetical countries. All the number values are in thousands.

a. Complete the following table:

| **Country** | **Adult Population** | **Labor Force** | **Employed** | **Unemployed** | **Unemployment Rate** | **Labor-Force Participation Rate** |
| --- | --- | --- | --- | --- | --- | --- |
| A | 120,000 |  | 60,000 | 4,500 |  |  |
| B |  | 28,000 |  | 3,000 |  | 60 |
| C | 70,000 | 40,000 |  |  | 10 |  |

High rate of unemployment in an economy negatively affects individuals, their families, and a nation as a whole since labor force is a very important productive resource. Based on this background information **and the table you completed under “3a”**, answer the following questions.

b. How does the government officially measure employment and unemployment in the economy? Why is it usually stated that the official unemployment rate likely underestimates the actual level of unemployment in the economy?

c. **Based on the table under “3a”**, describe the relationship between employment and economic well-being in the economy for each country. What are the impacts of labor force utilization and high unemployment rate on the **national economy of country A, B, and C?**

1. The following table indicates U.S. real GDP data to answer the following questions.

| **Year** | **Real GDP (2000 prices) (in millions)** | **Population (in millions)** |
| --- | --- | --- |
| 1987 | $6,435,000 | 243 |
| 2005 | $11,092,000 | 296.6 |

a. What is the Real GDP per person in 1987?

b. What is the Real GDP per person in 2005?

c. What is the percent change in Real GDP per person between 1987 and 2005?

5) Now that you have segmented the components of macroeconomic aggregates, explain their implications on the national economy. Provide examples based on your answers above and explain how CPI affects consumers, how CPI affects price, the effects of employment and unemployment on the U.S. economy, and how the changes in living standards could affect employees and the national economy.