Last Name (1)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ First Name (1)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Last Name (2)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ First Name (2)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Last Name (3)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ First Name (3)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Last Name (4)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ First Name (4)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Macroeconomics Homework Part 1 (of 2)

Principles of Economics with Dr. Beck

Module 6

Due Tuesday, January 17th at 17:00.

For this part of the homework, you may work in small groups. If you do so, please only make one submission. Working in a small group is completely optional.

This part of the assignment will cover Sessions 9-11 and be worth 50 of the 100 points attached to the macro homework. The point value of each question is marked.

Please write your answers below in **bold** (or incur a 1 point penalty).

Question #1) (2 points each blank, 8 points total)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | 1995 |  | 1996 |  | 1997 |  |
|  | Quant | Price | Quant | Price | Quant | Price |
| Liter of Milk | 100 | 2 | 110 | 2.2 | 115 | 2.2 |
| Heavy Metal CD | 30 | 15 | 35 | 14 | 41 | 15 |
| Snow Shovel | 24 | 20 | 25 | 25 | 26 | 26 |

Using the above information, calculate the following. Use 1995 as the base year where appropriate.

Nominal GDP for 1996: \_\_\_\_\_\_\_\_\_\_\_\_\_

Real GDP for 1996: \_\_\_\_\_\_\_\_\_\_\_\_\_\_

The growth rate of real GDP for 1996 (relative to 1995): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

GPD Deflator for 1997:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Question #2)

The “government purchases” component of GDP does not include spending on transfer payments such as financial assistance to poor families. Thinking about the definition of GDP, explain why transfer payments are excluded. (6 points)

Question #3)

Suppose that a borrower and lender agree on a nominal interest rate to be paid on a loan. Then inflation turns out to be higher than they both expected.

i) Is the real interest rate on this loan higher or lower than expected? For full credit, make reference to the Fisher Equation (which illustrated the connection between nom.int.rate, real int. rate, and the inflation rate). (4 points)

ii) Does the lender gain or lose from this unexpectedly high inflation? Does the borrower gain or lose? Explain. (4 points)

Question #4)

|  |  |  |
| --- | --- | --- |
| Year | Price of 1 Liter of Gasoline | CPI (Base Year=1983) |
| 1980 | €1.20 | 82 |
| 1990 | €1.16 | 130 |
| 2000 | €1.51 | 172 |
| 2010 | €2.78 | 218 |
| 2011 | €3.53 | 225 |

i) In which year was the real price of 1 liter of gasoline the highest? (4 points)

ii) What is the real price of 1 liter of gasoline in 1980, measured in 2011 euros (i.e. adjust the 1980 price into 2011€’s) (4 points)

iii) According to the CPI values provided, what was the inflation rate in 2011 (relative to 2010)? (3 points)

Question #5)

The economy of Econostan has a total working-aged population of 5,000 people. Of those 5,000 people:

* 4400 have jobs
* 220 don’t have jobs but are actively looking for work
* 80 don’t have jobs and would like to work, but have given up trying
* 100 are homemakers
* 200 are retired

i) What is the labor force participation rate for this economy? (3 points)

ii) What is the unemployment rate for this economy? (3 points)

Question #6)

Do you think 0% unemployment is a worthwhile goal to aim for? Why or why not? Answer in 50 words or fewer. (5 points)

Question #7)

In 2020, U.S. President (at the time) Donald Trump suggested that with his “terrific” policies, the United States could achieve 4%, 5%, or even 6% annual real GDP growth (or even more!). Note that the U.S. currently had an unemployment rate of around 4% and huge amounts of physical and human capital. Do you agree that such high growth rates are a likely, sustained, outcome? Why or why not? Answer in 100 words or fewer. (6 points)