Name:

Fall 2017

Principles of Macroeconomics
Week 4 – Circular Flow of Income and Unemployment

1. Are the following included in GDP? Use the expenditure approach to show how they affect or (do not affect) GDP?
   a) A Japanese-made Toyota car that cost a guy in Texas $20K

   b) The farming of oranges in Puerto Rico by a worker from Guatemala

   c) The sale of a video game in the UK that was developed in Los Angeles

   d) The purchase of a Boeing 777 airplane by United Airlines for $200 million where 40% of the inputs are imported.

2. List two examples of injections into the circular flow of income. What about leakages, how many can you name?

3. What are the three different types of unemployment? Describe them briefly in a sentence each.

4. For the following scenarios, identify which type of unemployment is involved.
   a) A worker in NY is offered a new job in Chicago starting in November. He spends a few weeks finding a new apartment and moving.
   e) The rise of autonomous cars leading to lost jobs in the taxi industry.
   f) Thousands of workers who are laid off after several Goodyear tire factories close in Michigan.
   g) A recent college grad who graduated a couple of months ago and is interviewing for jobs.

5. The constant inflation line is also known as _____, and also as the _____.

6. State Okun's Law.

7. How do you calculate the unemployment rate?

8. The population of Numenor is approximately 3.5 million people. Half the population are above 16 and can work, of whom 120,000 are students. Excluding the students, there are 15,000 people currently without a job of who 5,000 have given up looking for work. Everyone else is hard at work.

   a) Calculate the size of the working population.

   b) Find the no. of unemployed workers.

   c) What is the size of the labor force in Numenor.

   d) Calculate the unemployment rate.