

Economics 1102-33  
Homework 1  
Due Date: February 13 in class  
Total Points = 100

Instructions: All Homework has to be typed except for calculations and graphs. Show all your work for full credit.

No Late assignments will be accepted.

1. For the following parts, state how much the given action would change GDP, and give a brief explanation of your answer. **(5 points each part)**
  - a) Smith pays a carpenter \$15,000 to build a garage.
  - b) A carpenter purchases \$3,000 worth of materials to build a garage, which is then sold to Smith for \$15,000
  - c) Smith goes to land he owns, cuts down a tree, and uses the wood to build a garage that is worth \$15,000
  - d) You purchased a used computer from a friend for \$200.
  - e) The university buys a new computer from IBM for \$2000.
  
2. The statistical office of Shelbyville surveys the employment condition of the citizens on a monthly basis. For November, they found the following statistics:

	<u>No. of citizens</u>
• Worked full time for pay	901
• Worked part time for pay	150
• Did not work for pay, but looked for work	62
• Did not work for pay, did not look for work because he/she thought jobs were not available	32
• Did not work for pay because he/she did not want to	645

  - a) How many of Shelbyville's citizens were considered to be employed during November? **(5 points each)**
  - b) How many of Shelbyville's citizens were considered to be unemployed during November? **(5 points each)**
  - c) How many of Shelbyville's citizens were "discouraged workers" during November?**(5 points)**
  - d) What is Shelbyville's unemployment rate for November? Show your work. **(6 points)**
  
3. Identify which type of unemployment will be most affected by the following events, and briefly explain why: **(5 points each)**
  - a) A slump in auto sales occurs during a recession
  - b) Several Minnesotans, tired of the harsh winters, quit their jobs and move to Arizona to look for work.
  - c) A worker loses his job due to greater automation of the production line.
  
4. For each of the following, state whether GDP overstates or understates the actual output in a year. Briefly explain why. **(7.5 points each)**
  - a) Increased production in the underground economy
  - b) Increased production for home-use (non-market production)

Multiple-choice Questions: Choose the best answer to the questions below (4 points each)

1. A Texas oil company extracts petroleum and sells it for refinery for \$1000. After processing, the refinery sells the gasoline to a wholesaler for \$1500, who then sells it to a gas station for \$1700. The gas station sells it to customers for \$2500. In these transactions, how much has been added to GDP?
  - a) \$1000
  - b) \$1500
  - c) \$1700
  - d) \$2500
  - e) \$6700
  
2. For purposes of computing GDP, what is the difference between an intermediate good and a final good?
  - a) final goods are adjusted for inflation, intermediate goods are not
  - b) in GDP calculations, final goods and intermediate goods are counted
  - c) final goods are not adjusted for inflation, intermediate goods are
  - d) all of the above
  - e) none of the above
  
3. An example of a frictionally unemployed individual is:
  - a) Sylvia, who quit her job to spend more time with her children
  - b) Rod, a college student who quits her job to return to school
  - c) Steve, an individual who doesn't have the skills to keep his job as an engineer
  - d) Mary, who is working part-time
  - e) Samantha, who quits her job to look for a better one
  
4. All else equal, what is likely to happen to unemployment rate during a recession?
  - a) it increases as GDP increases
  - b) it decreases as GDP remains the same
  - c) it increases as GDP decreases
  - d) it decreases as cyclical unemployment decreases
  - e) it decreases as GDP decreases
  
5. Providing training to unemployed individuals will help alleviate:
  - a) frictional unemployment
  - b) structural unemployment
  - c) cyclical unemployment
  
6. With which of the following responses would the Census Bureau declare a person unemployed?
  - a) "I am currently working full-time but my employer is going to lay me off in a month"
  - b) "I am currently working part-time but I would like to work full-time."
  - c) "I was working at two different jobs, I lost my primary job a few weeks ago, and I am searching for a new job"
  - d) "I would love a job but I am not looking for one because I have no chance of finding one."
  - e) "I just turned 16 and I am looking for a job."