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|----------------|------------|
| 1. ____/10 | 4. ____/10 |
| 2. ____/10 | 5. ____/10 |
| 3. ____/15 | |
| Total: ____/55 | |

Name: _____
 Team: _____

Problem Set #2

Macro Unit 2: Macro Measures

1. (____/10) **Economic Growth**
 - a. Define GDP, identify what is not included, define the four components, and give an example of each (____/5)
 - b. Explain the difference between nominal and real GDP. Use a simplified numerical example with two different years to show your understanding. (____/5)

2. (____/10) **Unemployment**
 - a. Define and give examples of the three types of unemployment discussed in class. (____/5)
 - b. How is the unemployment rate calculated? Define the Natural Rate of Unemployment (NRU). Explain why our goal is not to achieve zero percent unemployment (____/5)

3. (____/15 Points) **Inflation**
 - a. Fill out the following tables to practice calculating the CPI for different base years (____/5)

| Year | Market Basket | Base Year 2006 | Base Year 2007 | Base Year 2008 |
|------|---------------|----------------|----------------|----------------|
| 2006 | \$20 | | | |
| 2007 | \$40 | | | |
| 2008 | \$50 | | | |

| Year | Market Basket | Base Year 2009 | Base Year 2010 | Base Year 2011 |
|------|---------------|----------------|----------------|----------------|
| 2009 | \$40 | | | |
| 2010 | | 125 | | |
| 2011 | | | 200 | |

- b. Explain the difference between demand pull and cost push inflation. Define the velocity of money. Use the quantity theory of money to explain what happens when the government prints money to fund governing. (____/5)
 - c. Identify how to calculate nominal interest rates and real interest rates. Assume that you put \$100 in the bank. Use numeric examples to explain three different scenarios in which the REAL interest rate is positive, stays the same, and is negative. (____/5)
4. (____/10) **Unit 2 Study Guide**
5. (____/10 Points) **Practice FRQs**
 - a. Components of GDP and Unemployment Practice (____/10)

OUTPUTS AND PRICES IN GALA LAND

| This Year's Output | This Year's Price |
|------------------------|-------------------|
| 400 loaves of bread | \$6 per loaf |
| 1,000 gallons of water | \$2 per gallon |
| 800 pieces of fruit | \$2 per piece |

Gala Land produces three final goods: bread, water, and fruit. The table above shows this year's output and price for each good.

- (a) Calculate this year's nominal gross domestic product (GDP).
- (b) Assume that in Gala Land the GDP deflator (GDP price index) is 100 in the base year and 150 this year. Calculate each of the following.
 - (i) The inflation rate, expressed as a percentage, between the base year and this year
 - (ii) This year's real GDP
- (c) Since the base year, workers have received a 20 percent increase in their nominal wages. If workers face the same inflation that you calculated in part (b)(i), what has happened to their real wages? Explain.
- (d) If the GDP deflator in Gala Land increases unexpectedly, would a borrower with a fixed-interest-rate loan be better off or worse off? Explain.