

## Problem Set 1: Answer Key

### Multiple Choice:

- 1) D
- 2) C
- 3) D
- 4) C
- 5) C
- 6) C
- 7) B
- 8) C
- 9) B
- 10) D

### Calculations:

- 11) 100 limes \* \$12 = \$1,200  
150 bottles \* \$20 = \$3,000  
800 cds \* \$1 = \$ 800

subtract the intermediate goods (limes)

$$\$5 * 20 = \$100$$

$$\mathbf{GDP\ in\ 2005 = \$4,900}$$

**The production method or expenditure method could be used to measure GDP.**

- 12) GDP = Production of all **final** goods and services. Thus, GDP is equal to the sales revenue of all final goods and services and doesn't include intermediate goods.

### Production Method

Orange Corp.

Sales Revenue to public \$10,000

Juice Corp.

Sales Revenue                      \$40,000

Subtract intermediate goods = \$10,000

**GDP = \$40,000**

Expenditure Approach

Consumption = \$10,000 (from orange corp.)

Consumption = \$40,000 (juice)

Net Exports = -\$10,000 (imported juice boxes)

**GDP = \$40,000**

Income Approach

Wages(Orange Corp.) = \$15,000

Rent                                      = \$10,000

Profits                                    = \$10,000

Wages(Juice Corp.)    = \$ 5,000

**GDP= \$40,000**

13) Government Purchases = \$1,500,000

Bombs are the only government purchases. The other government receipts and expenditures were transfer payments which are not included in GDP.

$GDP=C+I+G+NX$

$C=\$5,000,000$

$I = \$1,000,000$

$G= \$1,500,000$

$NX=-\$250,000$

**GDP= \$7,250,000    Calculated using the Expenditure Method**

14) According to microeconomics consumers and individuals will maximize their utility. When a consumer decides whether to purchase something he will calculate his enjoyment or utility that he would gain from having this good or service, and

only purchase the item if his utility exceeds the price. A correct measure of welfare should try to measure utility.

GDP is not a perfect measure of welfare for a number of reasons. First, GDP doesn't measure leisure. Oftentimes people get a lot of utility from hanging out, socializing with family and friends, playing video games, or going surfing.

GDP also doesn't take into account home produced goods and the quality of these goods. Family care by a mother is normally considered superior to hiring a stranger to care for your child. A mother coming over to clean provides additional benefits such as socializing and intimacy. Although these services are considered superior for most people they are not even counted as equal, as they are not included in GDP.

Furthermore, black market or illegal goods are not included in GDP. Individuals are often willing to pay a very high price and risk prosecution to obtain these illegal or black market goods. Accordingly, they likely obtain a lot of utility from these goods. In many countries the underground economy can be as large as the legal economy.

Lastly, GDP doesn't take into account income distribution. If a country has a very high GDP/capita, but all the income is taken by an evil dictator, the majority of the population could be living in wretched poverty, and likely have a very low level of welfare (utility).