**Study Guide #1**

**Please Show Work**

**PROBLEM 1**

Using exhibit 1

1. What is the nominal GDP in 2010?
2. What is the nominal GDP in 2011?
3. What is the real GDP in 2011 (using 2010 prices)?
4. What is the real GDP growth from 2010 to 2011?
5. What is the GDP deflator for 2011?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **YEAR** | **QUANTITY** | | **PRICES** | |
|  | **Apples** | **Bananas** | **Apples** | **Bananas** |
| 2010 | 200 | 50 | $2.00 | $1.50 |
| 2011 | 150 | 30 | $1.00 | $1.20 |

**Exhibit 1**

**PROBLEM 2**

Using the information on exhibit 2 calculate the consumer price index in the current year.

**Exhibit 2**

|  |  |  |  |
| --- | --- | --- | --- |
| **Product** | **Quantity in market basket** | **Price in base year** | **Price in current year** |
| Bread | 10 | $2.00 | $1.50 |
| Milk | 15 | $1.00 | $2.00 |
| Gum | 50 | $1.20 | $1.50 |

**PROBLEM 3**

Assume that the consumption function is given by C=200+0.5(Y-T), I=800, G=300, and T=200.

1. Calculate the equilibrium Y.
2. How much is consumption?
3. Suppose the government wants to achieve a level of Y=2,000. What level of T must be set to achieve the goal? Where C=200+0.5(Y-T), I=800, and G=300

**PROBLEM 4**

Use the Keynesian-cross model to illustrate graphically the impact of an increase in taxes on the equilibrium level of income.

**PROBLEM 5**

Suppose the economy is represented by the following equations:

Md/P = 6Y – 120r Ms/P = 5,400

C = 180 + 0.7(Y-T) I = 100 – 18r + 0.1Y T = 400 G = 400

Y = C + I + G

a. Write the numerical formula for the IS curve?

b. Write the numerical formula for the LM curve?

1. What is the equilibrium level of r?
2. What is the equilibrium Y?
3. What is the value of consumption?
4. What is the value of Investment?
5. What is the level of real Money Demand?

**PROBLEM 6**

Using the IS-LM model to answer these questions:

a. Suppose taxes increase. Illustrate graphically what effect will this on the IS curve, the LM curve, equilibrium output, and equilibrium interest rate.

b. What effect will this increase in T have on consumption?

c. What effect will this increase in T have on investment?

**PROBLEM 7**

Using the IS-LM model to answer these questions:

a. Suppose the money supply decreases. Illustrate graphically what effect will this on the IS curve, the LM curve, equilibrium output, and equilibrium interest rate.

b. What effect will this decrease in Ms have on consumption?

c. What effect will this decrease in Ms have on investment?