Multiple Choice

1. There is an increase in the Federal Budget Deficit. Using the circular flow diagram and all else being equal, which one of the following must be true?
   (a) Saving Decreases.
   (b) Business Investment decreases.
   (c) Taxes increases.
   (d) Foreign lending increases.

2. Last year Dick Cheney made $36 million. He paid $14.25 million in taxes. His autonomous consumption is $3 million. For every dollar that his income goes up, he tends to spend $0.60. How much did he save last year?
   (a) $14.4 million
   (b) $19.95 million
   (c) $17 million
   (d) $5.7 million

3. Which one of the following would be equivalent to the level of GDP for a country?
   (a) Total profits of all corporations in the country.
   (b) Adding up the value added by all producers in the country.
   (c) The total amount of spending by all residents.
   (d) Both (a) and (b).
   (e) Both (b) and (c).

4. According to the convergence hypothesis, countries with lower rates of growth of labor productivity have
   (a) lower levels of productivity.
   (b) higher levels of productivity.
   (c) a larger workforce.
   (d) higher levels of human capital.

5. A nation's supply of capital refers to its level of
   (a) common stocks and corporate bonds.
   (b) financial wealth.
   (c) production equipment.
   (d) the total supply of money.

6. Which one of the following can increase the growth of labor productivity?
   (a) An increase in the workforce.
   (b) An increase in the number of factories and equipment.
   (c) An increase in the production of consumption goods.
   (d) All of the above.
7. Suppose that society chooses a point along the economy’s PPF where all of it’s production of goods and services are consumption goods. If capital depreciates over time, which one of the following is true?
   (a) The economy should be able to produce more capital and consumption goods today.
   (b) In the future the economy will be able to produce more capital and consumption goods.
   (c) In the future the economy’s PPF will remain the same.
   (d) In the future the economy’s PPF will shift inwards.

8. It is your senior year at Villanova (full time student) and in the Spring you accept a job offer that will pay a six-figure salary. However, this job starts in the fall. What will happen this Spring (today)?
   (a) Your disposable income will increase.
   (b) Your autonomous consumption will decrease.
   (c) Your saving will decrease.
   (d) There will be no change in how much you consume or save since your job has not started yet.

9. Which one of the following would shift the consumption function for the U.S. economy upwards?
   (a) an economic expansion which increases current GDP.
   (b) a decline in the value of the stock market.
   (c) Congress passing a new bill which decreases taxes.
   (d) an increase in consumer confidence about the future of the economy.

10. Which one of the following definitely implies that the aggregate demand-side of the economy is in equilibrium?
    (a) IU = 0
    (b) Y = C + I + G + NX
    (c) I = I_d + IU
    (d) All of the above.

11. If Campbell’s Soup produces 1 million cans of soup and only sells 700,000 cans to consumers, which one of the following must be true?
    (a) GDP increases by the value of the 700,000 cans of soup.
    (b) GDP decreases by the value of 300,000 cans of soup.
    (c) Investment increases by 300,000 cans and GDP increases by 1 million cans.
    (d) Consumption increases by 1 million cans of soup.

12. Which one of the can be represented by an increase in autonomous consumption?
    (a) An increase in the price level.
    (b) A decrease in taxes.
    (c) An increase in consumer confidence.
    (d) An increase in government expenditures.
Numerical Problems

1. Using 2001 as the base year, suppose that for 2002, nominal GDP = $100,000 and real GDP = $90,000.

(a) What is the price index for 2001 and 2002? What is the inflation rate for 2002?

At the end of 2001 you make a loan to be paid back at the end of 2002. You would like (expect) a real interest rate of 5% on your loan.

(b) Suppose that you correctly expected the inflation rate computed in part (a). What is the nominal interest rate you should charge?

(c) Suppose instead that you expected a 6% inflation rate. What nominal interest rate would you charge? What will be the actual real interest rate on your loan?

2. Suppose you are given the following information about the U.S. economy (in Trillions):

<table>
<thead>
<tr>
<th>Category</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumption</td>
<td>$7</td>
</tr>
<tr>
<td>Investment</td>
<td>$2</td>
</tr>
<tr>
<td>Exports</td>
<td>$5</td>
</tr>
<tr>
<td>Imports</td>
<td>$6</td>
</tr>
<tr>
<td>Taxes</td>
<td>$1</td>
</tr>
<tr>
<td>Government Expenditures</td>
<td>$2</td>
</tr>
</tbody>
</table>

Calculate (a) disposable income, (b) national saving, (c) the Federal Budget Deficit and (d) the foreign trade deficit. Show that \( S = I + \text{Budget Deficit} + \text{Net Exports} \).

3. Suppose that the U.S. consumption function, in billions of dollars, is given by

\[
C = 750 + 0.75(DI)
\]

Where \( DI = Y - T \). The government sets taxes at \( T = 100 \).

(a) What is the level of autonomous consumption and the marginal propensity to consume?

(b) Compute the level of consumption for \( Y = 1000, 2000, 3000 \). Graph this consumption function.

(c) There is a decrease in consumer wealth (caused by a stock market crash). Which one of the following would most likely represent the new consumption function?

\[
C = 650 + 0.75(DI) \quad \text{OR} \quad C = 850 + 0.75(DI)
\]

(d) Using the same graph in part (b), illustrate the new consumption function.
4. Suppose that the economy described by

\[ C = a + 0.75(Y - T) \]
\[ ID = 75 \]
\[ G = 20 \]
\[ NX = -11 \]
\[ a = 100 \]
\[ T = 12 \]

(all figures in billions of dollars)

(a) What’s the federal budget deficit (or surplus) of this economy?

(b) If the economy is producing \( Y = 1000 \), is the demand-side of the economy in equilibrium? If not, compute the level of unplanned inventory investment (IU).

(c) What is the level of autonomous spending and the autonomous spending multiplier*? Compute the demand-side equilibrium level of GDP.

(d) A decline in the stock market has decreased consumer confidence. Autonomous consumption falls to 50. Compute the new equilibrium level of GDP.

(e) Graph your answers to parts (c) and (d) in a diagram.

* We will cover this concept next class; it is covered in Chapter 9 of the textbook.