Macro Assignment 11: Late 1990’s

1. **Review**: Potential GDP (GDP\(^{p}\)), the long run aggregate supply (LRAS) curve, and the aggregate supply (AS) curve.
   a. Define the term potential GDP (GDP\(^{p}\)).

   b. How are the long run aggregate supply (LRAS) curve and potential GDP (GDP\(^{p}\)) related?

   c. What is the shape of the long run aggregate supply (LRAS) curve?
      \begin{itemize}
      \item Upward sloping _____
      \item Downward sloping _____
      \item Horizontal _____
      \item Vertical _____
      \end{itemize}

   d. What is the shape of the aggregate supply (AS) curve?
      \begin{itemize}
      \item Upward sloping _____
      \item Downward sloping _____
      \item Horizontal _____
      \item Vertical _____
      \end{itemize}

   e. At what inflation rate do the aggregate supply (AS) curve and the long run aggregate supply (LRAS) curve intersect? ________________

   f. What is meant by the term “adaptive expectations?”

2. Consider the late 1990’s:

<table>
<thead>
<tr>
<th>Year</th>
<th>Unemp Rate (%)</th>
<th>Real GDP</th>
<th>Actual Infl Rate (%)</th>
<th>Expected Infl Rate (%)</th>
<th>Govt Purch</th>
</tr>
</thead>
<tbody>
<tr>
<td>1994</td>
<td>2.1</td>
<td>10,165</td>
<td>2.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1995</td>
<td>5.6</td>
<td>10,165</td>
<td>2.1</td>
<td>\approx_______</td>
<td>1,889</td>
</tr>
<tr>
<td>1996</td>
<td>5.4</td>
<td>10,165</td>
<td>2.1</td>
<td>\approx_______</td>
<td>1,908</td>
</tr>
</tbody>
</table>

   a. Fill in the blanks in the above table by applying the adaptive expectations principle.

   b. Why is the long run aggregate supply (LRAS) curve for 1995 drawn where it is?

   c. Did the expected inflation rate (\(\pi^{E}\)) remain more or less the same in 1996? Yes _____ No _____
d. Based on the expected inflation rate did the aggregate supply (AS) curve shift significantly or should it remain more or less stationary?

Shift ____  More or less stationary ____

e. Based on government purchases, how (if at all) should the aggregate demand (AD) curve shift in 1996?

Right ____  Left ____  No shift ____

Explain.

f. Should GDP in 1996 increase, decrease, or remain the same?

Increase ____  Decrease ____  Remain the same ____

g. Should the (actual) inflation rate in 1996 increase, decrease, or remain the same?

Increase ____  Decrease ____  Remain the same ____

h. A puzzle: The following table reports the actual values for GDP and the (actual) inflation in 1996.

<table>
<thead>
<tr>
<th>Year</th>
<th>Real GDP</th>
<th>Actual Infl Rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1994</td>
<td></td>
<td>2.1</td>
</tr>
<tr>
<td>1995</td>
<td>10,165</td>
<td>2.1</td>
</tr>
<tr>
<td>1996</td>
<td>10,550</td>
<td>1.8</td>
</tr>
</tbody>
</table>

What is unexpected about the actual results?

3. The following table reports on real GDP and the population in 1948 and 1989:

<table>
<thead>
<tr>
<th>Year</th>
<th>Population</th>
<th>Real GDP (billions of 2009 $)</th>
<th>Real GDP per Capita (2009 $)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1948</td>
<td>144,600,000</td>
<td>2,020</td>
<td></td>
</tr>
<tr>
<td>1989</td>
<td>246,800,000</td>
<td>8,775</td>
<td></td>
</tr>
</tbody>
</table>

a. Fill in the blanks for GDP per capita in 1948 and 1989. Be certain that your units are correct.

b. In percentage terms, between 1948 and 1989, by how much did

1) the population grow? ____%  
2) real GDP grow? ____%  
3) real per capita GDP grow? ____%