Question 1-5: Worth 10 points each for a total of 40 points. **ONLY ANSWER 4!** If you answer 5 and do not identify which one you would like me omit, I will grade the first 4.

1. Suppose that the election of a popular presidential candidate suddenly increases people's confidence in the future. Assume the economy is operating at the natural rate of output before the election.
   a. Use the model of aggregate demand and aggregate supply to analyze the effect on the economy after the election (Hint: You need a graph to explain this).
   b. What should the Fed do in order to maintain the natural rate of output? Also, explain the two fiscal policies that will also maintain the natural rate of output.
   c. If the government chooses not to act either monetarily or fiscally, what will happen?

(b) monetary policy (FED):

(1) contract AD by $\downarrow$

by $\downarrow$ money supply

by $\downarrow$ interest rates

(c) AS will move back to its natural rate of output as wages, prices, expectations adjust back to the natural rate of output.
2. A case study in the chapter 18 analyzed purchasing-power parity for several countries using the price of Big Macs. Here is some data from a few countries.

<table>
<thead>
<tr>
<th>Country</th>
<th>Price of Big Mac</th>
<th>Exchange Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Israel</td>
<td>12 shekels</td>
<td>4.79 shekels/$</td>
</tr>
<tr>
<td>Indonesia</td>
<td>16,000 rupiah</td>
<td>9,430 rupiah/$</td>
</tr>
<tr>
<td>Japan</td>
<td>300 Yen</td>
<td>118 Yen/$</td>
</tr>
</tbody>
</table>

a. For each country, compute the predicted exchange rate of the local currency per U.S. dollar. (Recall that the U.S. price of a Big Mac was $2.49).

b. How well does the theory of purchasing-power parity explain all the exchange rates?

c. Explain why some of these countries in part b. have larger gaps between the predicted exchange rate and actual exchange rate.

d. What if the nominal exchange rate increases the following year from 118 Yen/$ to 130 Yen/$? Does the Yen appreciate or depreciate against the US $? What about the US $, appreciate or depreciate?

\[
\text{predicted } \frac{\text{shekels}}{\text{U.S. \$}} = \frac{\text{12 shekels}}{2.49 \text{ U.S. \$}} = 4.82 \text{ shekels/ U.S. \$}
\]

\[
\text{predicted } \frac{\text{rupiah}}{\text{U.S. \$}} = \frac{\text{16,000 rupiah}}{2.49 \text{ U.S. \$}} = 6425 \text{ rupiah/ U.S. \$}
\]

\[
\frac{\text{300 Yen}}{2.49 \text{ U.S. \$}} = 120 \text{ Yen/ U.S. \$}
\]

(b.) **Purchasing-power parity holds for Israel and Japan, but not Indonesia.** It could be a number of reasons:

- **Very close for Israel & Japan, but not Indonesia.** It could be a number of reasons:
  - Trade agreements
  - Close foreign relations
  - Inflation

(d.) 118 Yen/$ \rightarrow 130 Yen/$

- Yen depreciates
- Dollar appreciates, more Yen for every Dollar.
3. Short-Run & Long-Run Supply Curve Questions
   a. Why is the short run aggregate supply curve upward sloping (3 reason)? Explain each reason.
   b. Why might the short-run aggregate supply curve shift (5 reasons)? Explain each reason.
   c. Give an example about how the short-run curve would decrease while the long-run curve would remain unchanged.
   d. Can the Fed influence output in the short-run? What about the long-run?

(a.)
sticky price ... → prices take time to adjust
sticky wages ... → wages take time to adjust
misperceptions theory ... → unexpectedly low price level
leads some suppliers to think their prices have fallen, which induces a fall in production.

(b.) Labor...
Capital...
Technology...
natural resources...
expectations....

(c.) temp. damage to infrastructure of firms.
    (i.e. California frost)

(d.) Fed can not change output in long-run,
    but it can change or output by of upward sloping curve.
4. In 2006 Zimbabwe experienced hyperinflation due to foreigners pulling assets out of the country and the government printing money at extraordinary levels.
   a. What should the government do to curb hyperinflation?
   b. During this period, civilians no longer put money in banks and bought wheat, cigarettes, and corn instead? Explain this phenomenon.
   c. Suppose Zimbabwe had a stock exchange and it remained open during this turmoil. How will this hyperinflation influence capital gains?
   d. According to Hume, real economic variables do not change with changes in money supply. Does this hold true in Zimbabwe? Explain.

(a.) Stop printing money
     Institute infrastructure policies
     (education, job training, so forth)

     Decrease government spending.

(b.) No reason to put money in the bank when customers only receive 4-10% on their money considering inflation is well over 100% in a month, which will eat away at the profits.
     It is better to buy goods that can hold value instead of putting in the bank.

(c.) Essentially, the high inflation will eat away at the profit. Suppose you bought a stock for $20 in 1996 and sold in 2000 for $100. Capital gain is $80, but if prices tripled, the price of the stock should be revalued to $280. If so, then the capital gain is only $40 (100-60).

(d.) In general, money supply does not influence real variables (labor, capital, natural resources, etc.) However, in cases of hyperinflation, wages won't be able to catch up with prices. If so, jobs will be lost and capital will go elsewhere.
5. Suppose the government reduces taxes by $40 billion, that there is no crowding out, and that the marginal propensity to consume is $\frac{1}{2}$.

a. What is the total effect of the tax cut on aggregate demand?

b. How does the total effect of this $40 billion tax cut compare to the total effect of a $40 billion increase in government purchases? Explain...

c. What if the marginal propensity to consume drops from $\frac{1}{2}$ to 0? What should lawmakers do as a policy to stimulate aggregate demand, increase government purchases or decrease taxes during this fall in MPC? Explain...

Suppose the government realized that the economy experienced a crowding out effect. How would this influence the original question in part a?

(a) 

\[ 40 \times \frac{1}{2} = 20 \text{ billion} \]

\[ mm = \frac{1}{1 - \text{MPC}} \]

\[ 20 \times mm = \text{MM} = 2 \]

\[ 20 \times 2 = 40 \text{ billion} \]

(b) Tax cut must consider MPC which will then stimulate output.

Gov. purchases directly impacts output.

\[ Y = I + C + \mathbb{G} + N_x \]

(c) Some w/ part b, govt. purchases directly affect output while taxes must consider MPC.

\[ \text{If MPC drops to zero, then all everything is being saved which in turn can not stimulate the economy through taxes} \]

(d) A reduction in taxes by $40 million will stimulate the economy by less than $40 million if crowding out exists.