1 True, False or Uncertain

Answer each of the following questions either true, false, or uncertain and explain your answer. Because the explanation is the most important part of your answer, you must provide an explanation for each question to receive full credit.

1. Expansionary fiscal policy increases both real GDP and interest rates. (5 points)

2. None of the following transactions are included in GDP: (a) a candy manufacturing firm buys $100,000 worth of raw sugar; (b) the candy manufacturing firm pays workers a monthly payroll of $250,000; (c) the candy manufacturer charges the public $5 per person for a tour of the factory and has an average of 200 visitors per month. (5 points)

3. Natural real GDP and the natural rate of unemployment are unrelated to the inflation rate. (5 points)
4. Mr. Jones does not have a job. For the last 6 months he has done nothing but lay on his couch watching reruns of old game shows on the GameShow Network and eating Doritos. According to the official government definition of unemployment, Mr. Jones is counted as an unemployed worker. (5 points)

5. Suppose that your bank increases the fee that you are charged when you use your ATM card from $0.50 for each transaction to $2.00 for each transaction. According to the Baumol-Tobin model of money demand, the average amount of cash you keep in your pocket will increase. (5 points)

6. The difference between Economy 1 and Economy 2 is that the sensitivity to money demand to changes in the interest rate in Economy 1 is larger and fiscal policy is more effective in Economy 2. (5 points)
2 Analysis

Answer the following questions in the space provided.

7. This question compares two economies, *Economy A* and *Economy B*, in the context of macroeconomic models. Where appropriate, draw graphs on the following axes depicting each economy.

7.a Show how real GDP and interest rates are determined in each economy. Label the equilibrium values of real GDP and interest rates in each economy ($Y_A'$, $r_A'$) and ($Y_B'$, $r_B'$). (5 points)

7.b Briefly describe how the money market and market for goods and services operates in each economy. (10 points)
7.c Suppose that you model the determination of net export spending ($NX$) differently in each economy. The net export function for each economy is shown below.

<table>
<thead>
<tr>
<th>Country A</th>
<th>Country B</th>
</tr>
</thead>
<tbody>
<tr>
<td>$NX_A = NX_a$</td>
<td>$NX_B = NX_a - nxY$</td>
</tr>
</tbody>
</table>

Are net exports exogenous in *Country A*? In *Country B*? Explain. Which country has a larger government spending multiplier? *(10 points)*

7.d Suppose that $I_p$ declines by $100$ million in *Country A* and $C_a$ declines by $100$ million in *Country B*. Show the effects of both these changes on equilibrium real GDP and interest rates in each economy. *(5 points)*

<table>
<thead>
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</tr>
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</table>
7.e Economic policy makers in each country want to return the level of real GDP to the initial values $Y'_A$ and $Y'_B$. Country A uses monetary policy and Country B uses fiscal policy to achieve this goal. Show the effects of each of these policies on the equilibrium level of real GDP and interest rates. (10 points)

Country A

Country B

7.f Define crowding out. (5 points)

7.g Graphically show the amount of crowding out that takes place in Country B when policy makers attempt to return the level of real GDP to $Y'_B$. (10 points)

Country B
7.h Describe what happens to the budget surplus in each country following the monetary and fiscal policy changes you graphed in question (7.e) above. (5 points)

7.i Suppose that banks in Country A hold larger reserves of cash in their vaults than banks in Country B. Which country has a larger money multiplier? Explain. (10 points)