Midterm 1

The total time for the exam is 60 minutes, although you are given 70 minutes to complete it. Points are allocated proportionally to the time allocations.

Part I: Multiple Choice (30 minutes)

1. If the J-curve is a relevant phenomenon, then a devaluation will lead to
   a. an initial worsening of the trade balance and a greater worsening in the long-run.
   b. large short-run demand responses.
   c. an initial worsening of the trade balance and an improvement in the long-run.
   d. an initial improvement in the trade balance and a worsening in the long-run.
   e. an initial improvement in the trade balance and a greater improvement in the long-run.

2. An appreciation
   a. increases the value of domestic currency and the exchange rate.
   b. increases the value of domestic currency and decreases the exchange rate.
   c. decreases the value of domestic currency and the exchange rate.
   d. decreases the value of domestic currency and increases the exchange rate.
   e. increases the value of domestic currency and leaves the exchange rate unchanged.

3. If the elasticity of export and import demands are 0.7 and 0.3 respectively, and the country initially has balanced trade, a devaluation will lead to
   a. a trade surplus.
   b. no change in the trade balance.
   c. a trade deficit.
   d. a decline in export revenue greater that the decline in import revenue.
   e. none of the above.

4. Suppose net income receipts and cross-country transfers are zero. Then the trade balance:
   a. is equal to the government budget balance.
   b. is equal to private saving minus private investment plus the government budget balance.
   c. is equal to production minus consumption, investment and government spending.
   d. both (b) and (c).
   e. none of the above.

5. A devaluation
   a. lowers the price paid by foreigners for domestic exports and raises the price of imports.
   b. raises the price paid by foreigners for domestic exports and raises the price of imports.
   c. raises the price paid by foreigners for domestic exports and lowers the price of imports.
   d. lowers the price paid by foreigners for domestic exports and lowers the price of imports.
   e. does not change the price paid by foreigners for domestic exports and lowers the price of imports.
6. A country on a fixed exchange rate system seeks to maintain output at current levels and improve its trade balance. Assuming the Marshall-Lerner conditions hold, a set of policies that will achieve these goals includes:
   a. devaluation and a reduction in government spending.
   b. revaluation and a reduction in government spending.
   c. devaluation and provision of incentives for increased investment.
   d. revaluation and hold government spending constant.
   e. none of the above.

7. A country is running a current account deficit. Which of the following might be true?
   a. The central bank is reducing its holdings of foreign assets, but its residents are not reducing their holdings of foreign assets. The private financial account is in balance.
   b. The central bank is increasing its holdings of foreign assets, but its residents are not reducing their holdings of foreign assets. The private financial account is in balance.
   c. Official reserves transactions are zero and its residents are reducing their holdings of foreign assets.
   d. (a) and (c).
   e. none of the above.

8. Suppose today, the exchange rate (from the American perspective) was 1.30 $/€, and a year previously, it was 1.50 $/€. Then,
   a. the euro has appreciated against the dollar over the past year.
   b. compared against a year ago, it now takes more dollars to purchase a single euro.
   c. the dollar has depreciated against the euro over the past year.
   d. (a) and (b)
   e. none of the above.

9. A country running a current-account surplus is
   a. building up a positive net foreign asset position.
   b. reducing claims on foreigners.
   c. accumulating claims on foreigners.
   d. reducing its net foreign asset position.
   e. (a) and (c).

10. Under a fixed exchange rate regime, the official exchange rate
    a. must equate private supply and demand for a currency.
    b. must collapse if the central bank no longer has foreign currency reserves.
    c. is maintained by the central bank's willingness to buy and sell currency at the official rate.
    d. will lead to a balance of payments deficit.
    e. none of the above.
Part II: Short Answer (30 minutes)

In the following questions, “box in” your algebraic answers. Consider the following economy:

<table>
<thead>
<tr>
<th>Eq.No.</th>
<th>Equation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1)</td>
<td>$Y = AD$</td>
<td>Output equals aggregate demand, an equilibrium condition</td>
</tr>
<tr>
<td>(2)</td>
<td>$AD \equiv C + I + G + EX - IM$</td>
<td>Definition of aggregate demand</td>
</tr>
<tr>
<td>(3)</td>
<td>$C = \overline{CO} + c(Y - T + TR)$</td>
<td>Consumption function, $c$ is the MPC</td>
</tr>
<tr>
<td>(4)</td>
<td>$T = tY$</td>
<td>Tax function; $t$ is tax rate.</td>
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<tr>
<td>(5)</td>
<td>$TR = \overline{TR}$</td>
<td>Transfers function (e.g., social security payments)</td>
</tr>
<tr>
<td>(6)</td>
<td>$I = \overline{IN}$</td>
<td>Investment function</td>
</tr>
<tr>
<td>(7)</td>
<td>$G = \overline{GO}$</td>
<td>Government spending on goods and services</td>
</tr>
<tr>
<td>(9)</td>
<td>$EX = \overline{EXP} + nq$</td>
<td>Export spending</td>
</tr>
<tr>
<td>(10)</td>
<td>$IM = \overline{IMP} + mY - vq$</td>
<td>Import spending</td>
</tr>
</tbody>
</table>

Assume the real exchange rate is constant.

1. (5 minutes) Solve for $Y$. Show your work.

2. (5 minutes) Calculate the change in income for a given change in government transfers. Show your work!

3. (8 minutes) Calculate the change in the trade balance for a given change in government spending. Hint: $TB \equiv EX - IM$. Show your work!

4. (8 minutes) Calculate the change in the budget balance for a change in the real exchange rate. Hint: $BuS \equiv T - G - TR$. Show your work!

5. (4 minutes) Explain the economics of why you obtain the results in 4.