Final Exam

1. (15 Points) Suppose that the following equations describe an open economy:

\[ C = 18.5 + (0.85)(Y - T), \quad T = 10, \quad I = 10, \quad G = 10, \quad X = 10, \quad M = (0.3)Y \text{ ve } \epsilon = 3. \]

**Hint:** Do not forget to take into consideration the real exchange rate, \( \epsilon \), as it is done in your major textbook, namely Macroeconomics (Blanchard).

(a) Find the multiplier and equilibrium GDP values of this economy.
(b) Find the equilibrium net export value of this economy.
(c) What should be equilibrium GDP to make net exports balanced (=zero).

2. (20 Points) Compare and contrast the impact of a decrease in taxes under small open economy for both fixed exchange and flexible exchange regimes. Do not forget to support your answer by illustrations.

3. (30 Points) Please do solve the following short questions.

3.1 Consumption
Let’s assume that you have 4 periods of life: younghood, young-adulthood, old-adulthood and retirehood. During younghood, you do not earn any income. You earn $140,000 (real dollars) and $160,000 (real dollars) per period, when you are young-adult and old-adulthood, respectively. Again there is no income during your retirehood. Given that you do not like any deviation in your consumption level (=you want your consumption to be smooth), what should be your consumption per period? The real rate of interest is 2% per period.

3.2 Investment
Suppose that the cost of investment project is $200. The first year, the return is $100 and the second year, the return is $120. The project ends in the two years. If the real rate of interest is 10%, should the firm make the investment?

3.3 Real Exchange Rate (RER)
Suppose that 1 kg of apple is $2.5 in the United States and €1.245 in Spain. Given that the nominal exchange rate is €0.79/$, find the real exchange rate and interpret it.
3.4 Interest Parity condition
Consider a financial investor choosing between US bonds and Japanese bonds. Suppose that one year interest rate on US bonds is 5% and the one-year interest on Japanese bonds is 14%. Suppose that the current (nominal) exchange rate is 100 (1 dollar is worth 100 yen) and the expected exchange rate a year from now is 110 (Yen depreciates!). In which bond should the investor invest?

3.5 Real interest rate versus nominal interest rate
Suppose that real interest rate is 5% and expected inflation is 2%. What is the nominal rate of interest?

3.6 Marshall-Lerner Condition
Suppose that a 1% depreciation leads to a proportional increase in exports of 0.9% and to proportional decrease in imports of 0.8%. How does the trade balance change? Improve or deteriorate? By what percentage?

4. (15 Points) An increase in government spending leads to an increase in output and to a trade deficit; however, an increase in exports leads to an increase in output and to a trade surplus. Do discuss and illustrate this statement. Hint: Use the simple Keynesian framework.

5. (20 Points) Compare and contrast the impact of an increase in money supply under large open economy for both fixed exchange and flexible exchange regimes. Do not forget to support your answer by illustrations.