(1) [15 points] The IS-LM Model

Use the IS – LM model to illustrate graphically the impact on output (Y) and interest rate (r) of each of the following economic events.

(a) [5 points] The Fed keeps the economy from falling into recession if the budget deficit is reduced:

Interest rate decreases and output remains constant

(b) [5 points] A one-time increase in the price level due to a large increase in oil prices:

Interest rate increases and output decreases

(c) [5 points] Congress reduces the budget deficit by reducing government spending:

Both interest rate and output decrease
(2) [10 points] **The Classical Model**

Assume that in a small open economy where full employment always prevails, national saving \( S \) is 300.

(a) [3 points] If domestic investment is given by \( I = 400 - 20r \), where \( r \) is the real interest rate in percent, what would the equilibrium interest rate be if the economy were closed?

\[ r = 5 \]

(b) [3 points] If the economy is open and the world interest rate is 10 percent, \( r^* = 10 \), what will investment be?

\[ I = 200 \]

(c) [4 points] What will the current account surplus or deficit be? What will net foreign investment (or net capital outflow) be?

*The trade surplus will be 100. Net foreign investment (or net capital outflow) will be 100*

(3) [5 points] **Real Exchange Rate**

If 5 euros trade for $1, the U.S. price level equals $1 per good, and the European price level equals 2 euros per good, then what is the real exchange rate between European goods and U.S. goods?

*The real exchange rate between European goods and U.S. goods is 2.5 European goods per U.S. good*
In September 1995, Patrick Buchanan, a Republican candidate for president, proposed a 10-percent tariff on Japanese imports to the United States, a 20-percent tariff on Chinese imports to the United States, and an unspecified “social” tariff on imports from third-world countries.

(a) [6 points] Use the long-run model of a small open economy to illustrate graphically the impact of these trade policies on the U.S. real exchange rate and the trade balance. Assume that the country starts from a position of trade balance, i.e., exports equal imports.

The real exchange rate rises and net exports would remain constant.

(b) [4 points] Based on your graphical analysis, explain the predicted impact of Mr. Buchanan’s proposed policies. Specifically state what happens to the exchange rate, the trade balance, the volume of imports, and the volume of exports.

Under Mr. Buchanan’s policy, the dollar exchange rate would appreciate but the trade balance would remain unchanged. However, the volume of imports will decrease (because of the tariffs) and the volume of exports will decrease by the same amount (because of the appreciation of the exchange rate).