MACROECONOMICS

Section II
Planning Time—10 minutes
Writing Time—50 minutes

Directions: You have 50 minutes to answer all three of the following questions. It is suggested that you spend approximately half your time on the first question and divide the remaining time equally between the next two questions. In answering the questions, you should emphasize the line of reasoning that generated your results; it is not enough to list the results of your analysis. Include correctly labeled diagrams, if useful or required, in explaining your answers. A correctly labeled diagram must have all axes and curves clearly labeled and must show directional changes. Use a pen with black or dark blue ink.

1. Assume that the United States economy is currently in long-run equilibrium.
   (a) Draw a correctly labeled graph of aggregate demand and aggregate supply and show each of the following.
      (i) The long-run aggregate supply curve
      (ii) The current equilibrium output and price levels, labeled as \( Y_E \) and \( P_L_E \), respectively
   (b) Assume that the government increases spending on national defense without raising taxes.
      (i) On your graph in part (a), show how the government action affects aggregate demand.
      (ii) How will this government action affect the unemployment rate in the short run? Explain.
   (c) Assume that the economy adjusts to a new long-run equilibrium after the increase in government spending.
      (i) How will the short-run aggregate supply curve in the new long-run equilibrium compare with that in the initial long-run equilibrium in part (a)? Explain.
      (ii) On your graph in part (a), label the new long-run equilibrium price level as \( P_L_2 \).
   (d) In order to finance the increase in government spending on national defense from part (b), the government borrows funds from the public. Using a correctly labeled graph of the loanable funds market, show the effect of the government’s borrowing on the real interest rate.
   (e) Given the change in the real interest rate in part (d), what is the impact on each of the following?
      (i) Investment
      (ii) Economic growth rate. Explain.

2. A drop in credit card fees causes people to use credit cards more often for transactions and demand less money.
   (a) Using a correctly labeled graph of the money market, show how the nominal interest rate will be affected.
   (b) Given the interest rate change in part (a), what will happen to bond prices in the short run?
   (c) Given the interest rate change in part (a), what will happen to the price level in the short run? Explain.
   (d) Identify an open-market operation the Federal Reserve could use to keep the nominal interest rate constant at the level that existed before the drop in credit card fees. Explain.
3. A United States firm sells $10 million worth of goods to a firm in Argentina, where the currency is the peso.

(a) How will the transaction above affect Argentina’s aggregate demand? Explain.

(b) Assume that the United States current account balance with Argentina is initially zero. How will the transaction above affect the United States current account balance? Explain.

(c) Using a correctly labeled graph of the foreign exchange market for the United States dollar, show how a decrease in the United States financial investment in Argentina affects each of the following.

   (i) The supply of United States dollars

   (ii) The value of the United States dollar relative to the peso

(d) Suppose that the inflation rate is 3 percent in the United States and 5 percent in Argentina. What will happen to the value of the peso relative to the United States dollar as a result of the difference in inflation rates? Explain.

STOP

END OF EXAM
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Question 1

10 Points (2 + 2 + 2 + 2)

(a) 2 points:
- One point is earned for a correctly labeled graph with a downward-sloping AD curve, an upward-sloping SRAS curve, and the points PL_E and Y_E on the vertical and horizontal axes.
- One point is earned for showing a vertical LRAS curve at Y_E.

(b) 2 points:
- One point is earned for showing a rightward shift of the AD curve on the graph in part (a).
- One point is earned for stating that the unemployment rate would fall and explaining that this is because real output increases.

(c) 2 points:
- One point is earned for stating that the short-run aggregate supply curve will shift to the left and showing PL_2 correctly on the graph in part (a).
- One point is earned for explaining that the actual price level is higher than was expected or that wages and commodity prices adjust to the higher price level, causing the SRAS curve to shift to the left.
(d) 2 points:

- One point is earned for a correctly labeled graph of the loanable funds market.
- One point is earned for showing a rightward shift of the demand curve, resulting in a higher interest rate OR a leftward shift of the supply curve, resulting in a higher interest rate.

(e) 2 points:

- One point is earned for stating that investment spending will decrease.
- One point is earned for explaining that the decrease in investment slows down capital formation, leading to a reduction in the economic growth rate.
Question 2

6 points \((2 + 1 + 2 + 1)\)

(a) 2 points:
- One point is earned for a correctly labeled graph of the money market.
- One point is earned for showing a downward shift of the money demand curve and showing a decrease in the nominal interest rate using arrows, labels or dotted lines.

(b) 1 point:
- One point is earned for stating that bond prices will rise in the short run.

(c) 2 points:
- One point is earned for stating that the price level will rise.
- One point is earned for the explanation that the price level increases because aggregate demand increases, and aggregate demand increases because interest-sensitive spending (investment, consumption or net exports) increases.

(d) 1 point:
- One point is earned for stating that the Fed could sell bonds to decrease the money supply and raise the interest rate back to the original level.
**Question 3**

6 points \((1 + 1 + 2 + 2)\)

(a) 1 point:
- One point is earned for stating that Argentina’s aggregate demand will fall because the purchase results in increased imports or decreased net exports, which are components of aggregate demand.

(b) 1 point:
- One point is earned for stating that the United States current account will be in surplus or increases because exports are recorded as a credit in the current account.

(c) 2 points:
- One point is earned for a correctly labeled graph of the dollar market.
- One point is earned for showing a leftward shift of the supply curve and indicating that the value of the dollar against the peso increases, using arrows, labels or dotted lines.

(d) 2 points:
- One point is earned for stating that the peso will depreciate against the dollar.
- One point is earned for explaining that the higher inflation rate in Argentina makes U.S. goods less expensive (or more attractive) than Argentinean goods.