2018

AP CollegeBoard

AP Macroeconomics

Sample Student Responses and Scoring Commentary

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Free Response Question 1

☑ Scoring Guideline

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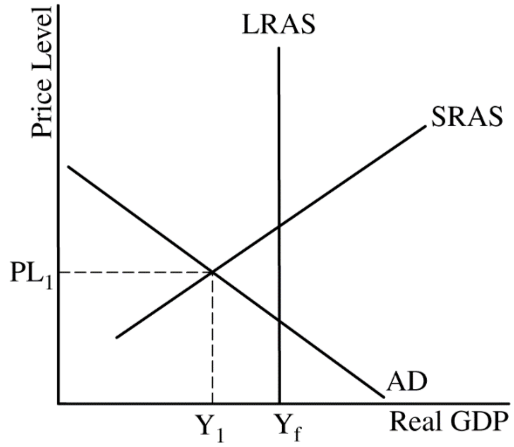
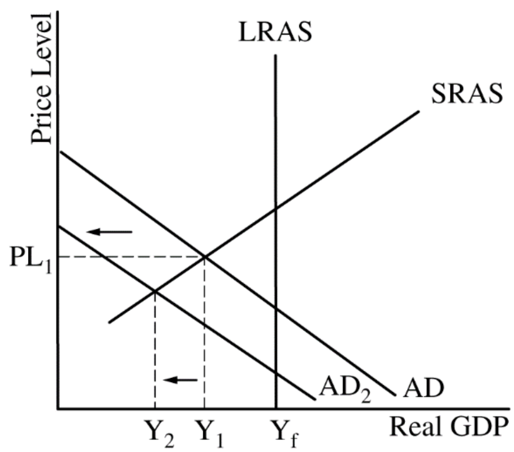
Question 1

10 points (2 + 3 + 2 + 3)



(a) 2 points:

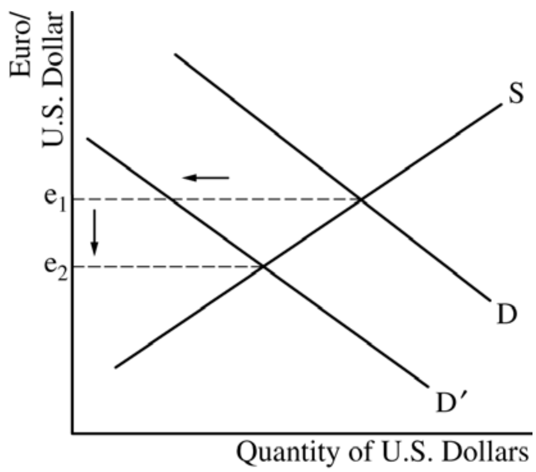
- One point is earned for drawing a correctly labeled graph for aggregate demand (AD) and short-run aggregate supply (SRAS), showing PL_1 and Y_1 at the intersection of AD and SRAS.
- One point is earned for drawing a vertical LRAS curve to the right of Y_1.



(b) 3 points:

- One point is earned for stating that United States exports will decrease and for explaining that the fall in income in the euro zone reduces the demand for United States goods.
- One point is earned for showing a leftward shift of the aggregate demand (AD) curve and showing lower United States real output on the graph.
- One point is earned for stating that unemployment in the U.S. will increase.

Question 1 (continued)



(c) 2 points:

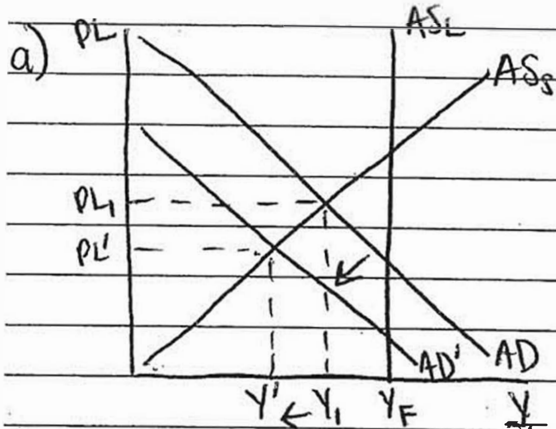
- One point is earned for stating that the euro will appreciate against the U.S. dollar because the supply of euros decreases OR because the dollar depreciates against the euro, the euro must appreciate.
- One point is earned for drawing a correctly labeled graph of the foreign exchange market for dollars and for showing a leftward shift in the demand curve for the dollar, which would result in a depreciation of the dollar.

(d) 3 points:

- One point is earned for stating that the U.S. aggregate demand will increase.
- One point is earned for stating that the U.S. price level will increase.
- One point is earned for stating that the change in the interest rate is indeterminate and for explaining that the combination of expansionary fiscal and monetary policies has opposite effects on interest rates (the expansionary fiscal policy will increase the interest rate, as government borrows to finance its spending, and the expansionary monetary policy will increase the money supply and decrease the interest rate).

1A

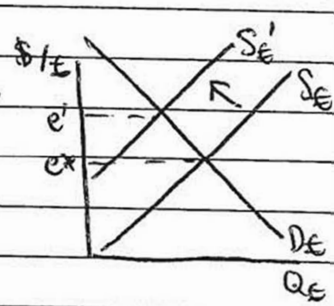
a)



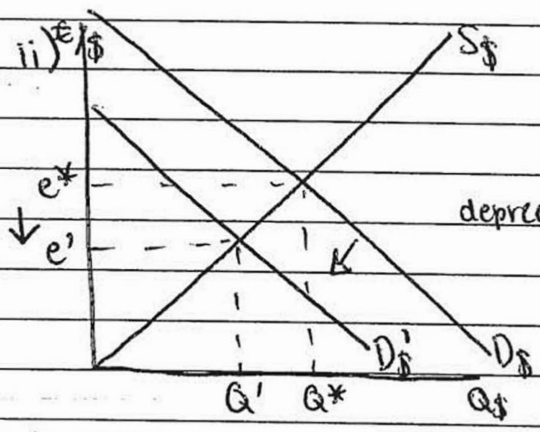
b) i) Euro zone recession ∴ European Y↓ ∴ European D↓ ∴ Europe demands less goods ∴ Europe M↓ ∴ US exports ↓

iii) Y↓ unemployment ↑

c) i) $D_\$$↓ ∴ $S_€$↓ ∴ $Q_€$↓ e↑ ∴ appreciate



ii)



d) i) AD↑

ii) PL↑

iii) Interest rates indeterminate since expansionary monetary policy ∴ MS↑ ∴ NIR↓ but expansionary fiscal policy ∴ D_M↑ ∴ NIR↑ Therefore NIR indeterminate
Expansionary monetary policy ∴ S_{LF}↑ ∴ RIR↓
Expansionary fiscal policy ∴ D_{LF}↑ ∴ RIR↑
Therefore RIR indeterminate

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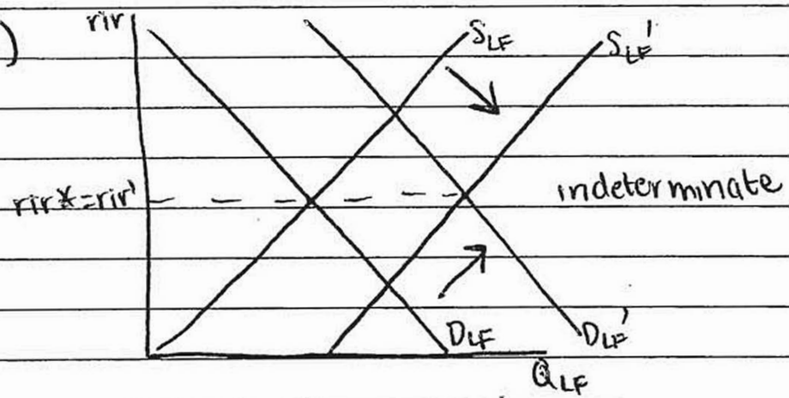
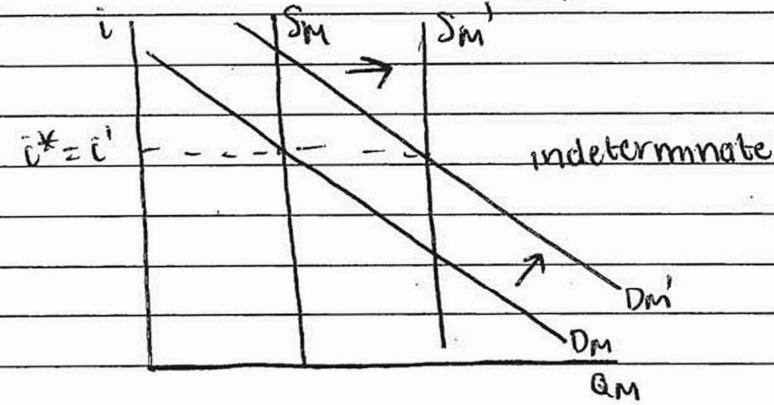
1A2

ADDITIONAL PAGE FOR ANSWERING QUESTION 1

d) iii)





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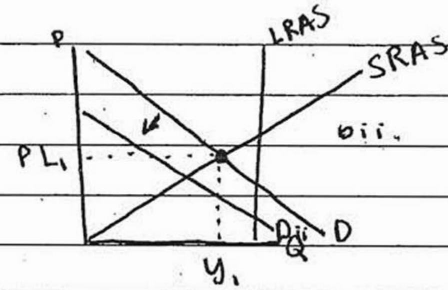
1 B

ANSWER PAGE FOR QUESTION 1

a)



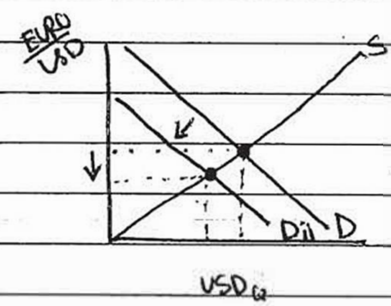
b) i. The exports to the euro zone will decrease b/c the euro zone is in a recession & ~~tor~~ the Marginal propensity to consume will dec. There will be less spending on ~~[illegible]~~ other goods.

ii. shown above

iii. Unemployment in the United States will increase b/c less workers will be needed to support the demanded output b/c less is being demanded.

c) i. The euro will appreciate b/c the demand for USD is decreasing (USD depreciates) & as one's value increases, the other decreases.

ii



d) i. The aggregate demand will increase.

ii. The price lvl will increase

iii. The interest rates will decrease so that people can take out more loans & spend more.

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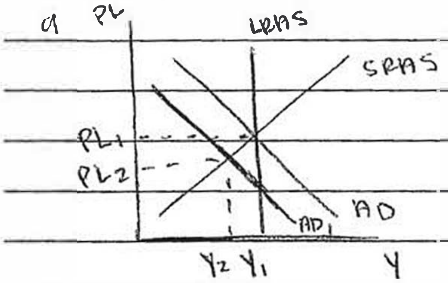
1C

ANSWER PAGE FOR QUESTION 1

a

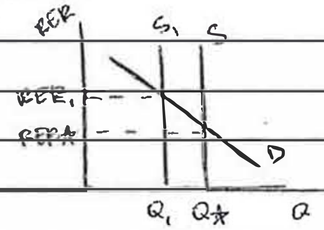


b (i) US exports will decrease because AD in the euro zone decreases, so they demand less, decreasing US exports.

(iii) unemployment will rise

c (i) if the demand for US dollars decrease, then the euro will appreciate because the real exchange rate increases.

(ii)



d (i) Aggregate demand increases

(ii) price level increases

(iii) If the US uses expansionary monetary policy, then the Fed can buy bonds, increasing the money supply and lowering interest rates.

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2018 SCORING COMMENTARY

Question 1

Overview

The question examined students' understanding of the aggregate demand/aggregate supply (AD/AS) model and the effects of a recession in the United States on its trading partners' economies. Part (a) required students to use the AD/AS model to show the United States economy in a recession by showing that the current level of output (real gross domestic product) is less than the full employment level of output.

For part (b) students were asked to assume that the euro zone, a major trading partner of the United States, has entered into a recession. Then, in part (b)(i), students were asked to explain how the recession in the euro zone would affect exports from the United States to the euro zone. Part (b)(ii) asked students to return to the graph created for part (a) in order to show how the change in exports to the euro zone would affect real output in the United States. Part (b)(iii) asked students to conclude how the change illustrated in part (b)(ii) would affect unemployment in the United States.

For part (c) students were asked to assume that the euro zone recession caused a decrease in the demand for the United States dollar in the foreign exchange market. In part (c)(i) students were asked to explain whether this would cause the euro to appreciate, depreciate, or remain unchanged in value against the dollar. Then, part (c)(ii) asked the students to draw a correctly labeled graph of the foreign exchange market for dollars and to illustrate the effect of the decrease in the demand for dollars on the exchange rate.

Finally, for part (d), students were asked to assume that the United States enacted a combination of expansionary fiscal and monetary policies and that the expansionary fiscal policy did not lead to complete crowding out. Part (d)(i) required students to identify the policies' effect on aggregate demand in the United States, part (d)(ii) required the students to identify the policies' effect on the price level in the United States, and part (d)(iii) required the students to explain how the policies would affect interest rates in the United States.

Sample: 1A
Score: 10

The student answers all parts of the question correctly and earned all 10 points.

Sample: 1B
Score: 7

The student did not earn 1 point in part (b)(i) because the response does not provide a correct explanation as to why exports decrease. The student did not earn 1 point in part (b)(ii) because the graph does not show a decrease in output on the horizontal axis. The student did not earn 1 point in part (d)(iii) because the response incorrectly states that interest rates would decrease.

Sample: 1C
Score: 3

The student earned 1 point in part (a)(i) for drawing a correctly labeled graph of the aggregate demand/aggregate supply model and correctly showing the equilibrium price level (PL_1 and output (Y_1)). The student earned 1 point in part (d)(i) for correctly stating that aggregate demand will increase. The student earned 1 point in part (d)(ii) for correctly stating that the price level will increase.