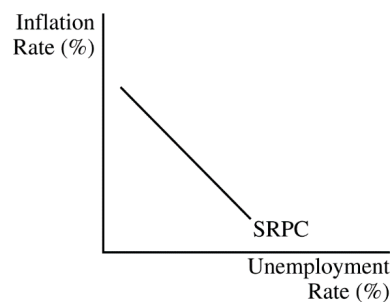
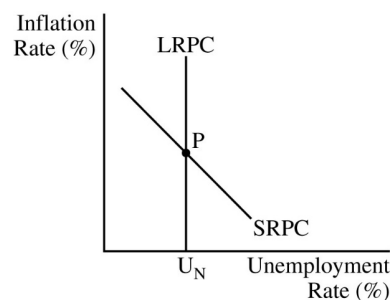
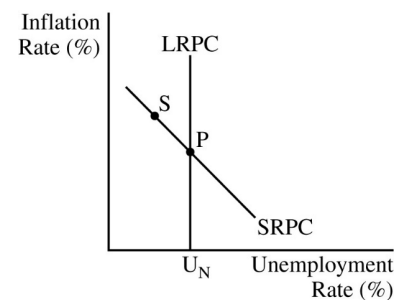


**Question 1: Long****10 points****A** Draw a correctly labeled graph of the short-run Phillips curve (SRPC). **1 point**

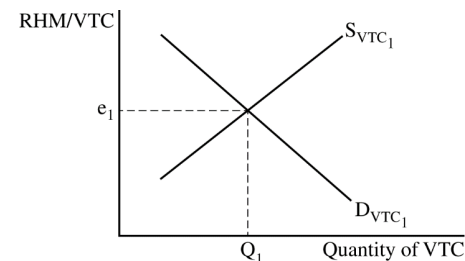
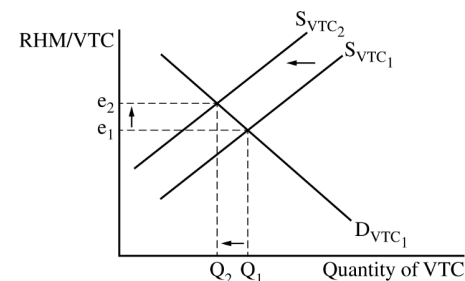
Point 1

Point 2 The graph must include a correctly labeled long-run Phillips curve (LRPC) and show a point labeled P at the intersection of the short-run and long-run Phillips curves. **1 point**Point 3 **B (i)** State that real output will increase and explain that the new residential construction projects increase investment spending, which increases aggregate demand. **1 point****(ii)** On the graph from part A, show a point labeled S on the SRPC to the left of point P. **1 point**

Point 4

**C** Draw a correctly labeled graph of the foreign exchange market for the Vortanian crown. **1 point**

Point 5

Point 6 The graph must show a leftward shift in the supply curve of the Vortanian crown, resulting in an appreciation of the Vortanian crown. **1 point****D** State that Vortania's net exports will decrease. **1 point**

Point 7

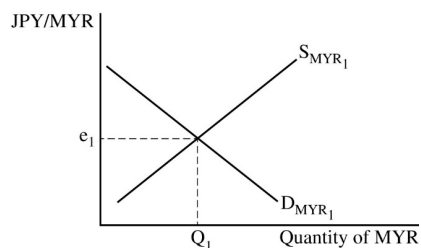
Point 8 **E (i)** State that the capital and financial account (CFA) balance in Vortania will move into surplus and explain that the current account (CA) moved into deficit and the balance of payments must balance (CA+CFA=0). **1 point****(ii)** State that employment in Vortania will decrease. **1 point**

Point 9

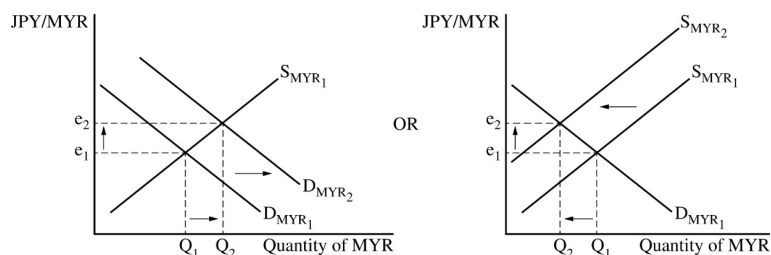
Point 10 **F** State that the central bank of Vortania would sell Vortanian crowns in the foreign exchange market and explain that the increased supply of the Vortanian crown will cause it to depreciate. **1 point**

**Question 3: Short** **5 points**

- (a) State an increase in government spending, a decrease in taxes, or an increase in transfer payments. **1 point**
- (b) State that the real interest rate will increase and explain that government borrowing will increase, which will increase the demand for loanable funds (or decrease the supply of loanable funds). **1 point**
- (c) Draw a correctly labeled graph of the foreign exchange market for the ringgit. **1 point**



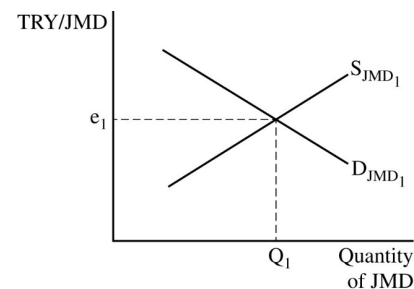
For the second point, the graph must show an increase in the demand for the ringgit (or a decrease in the supply of the ringgit), resulting in an appreciation of the ringgit. **1 point**

**Total for part (c) 2 points**

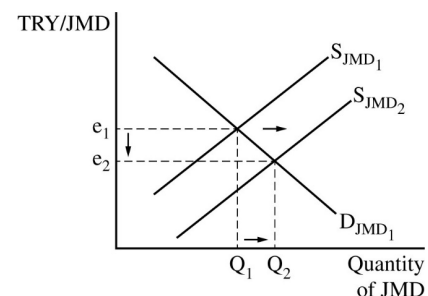
- (d) State that Malaysia's imports will increase and explain that the appreciation of the ringgit will make Japanese goods relatively less expensive than they were before. **1 point**

**Total for question 3 5 points****Question 3: Short** **5 points**

- (a) State an increase in government spending, a decrease in taxes, or an increase in transfer payments. **1 point**
- (b) State that Jamaica's net exports will decrease and explain that Jamaican demand for international goods will increase as a result of the increase in Jamaica's real income, which will increase Jamaican imports. **1 point**
- (c) Draw a correctly labeled graph of the foreign exchange market for the Jamaican dollar. **1 point**



For the second point, the graph must show an increase in the supply of the Jamaican dollar, resulting in a depreciation of the Jamaican dollar. **1 point**

**Total for part (c) 2 points**

- (d) State that Jamaica's capital and financial account (CFA) will move into surplus and explain that the current account (CA) moved into deficit and the balance of payments must balance (CA+CFA=0). **1 point**

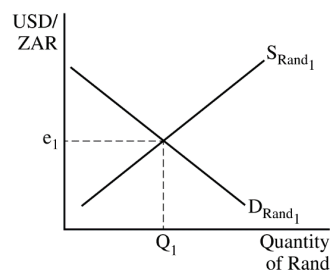
**Total for question 3 5 points**

**Question 2: Short****5 points**

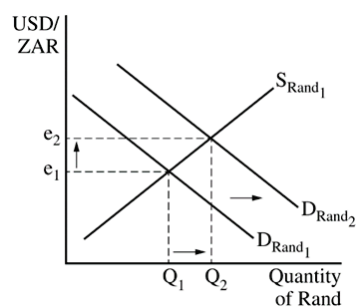
- (a) State that United States net exports will decrease and explain that the demand for goods from South Africa will increase, which increases United States imports. **1 point**
- (b) (i) State that the capital and financial account balance in the United States will move into surplus. **1 point**
- (ii) State that actual unemployment in South Africa will decrease in the short run and explain that South African exports will increase, which will increase aggregate demand and real GDP in South Africa. **1 point**

**Total for part (b) 2 points**

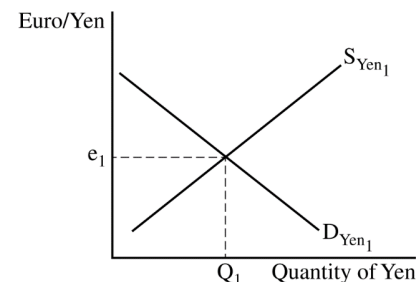
- (c) Draw a correctly labeled graph of the foreign exchange market for the rand. **1 point**



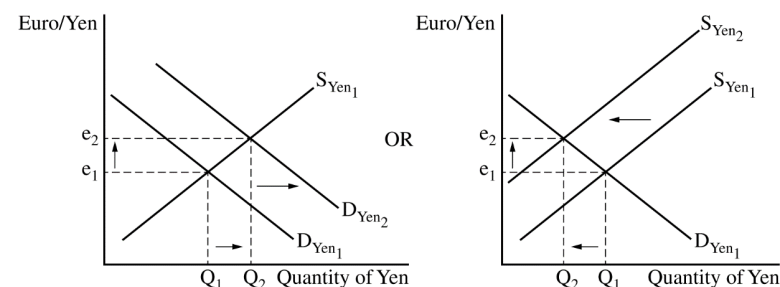
For the second point, the graph must show a rightward shift in the demand curve for the rand, resulting in an appreciation of the rand. **1 point**

**Total for part (c) 2 points****Total for question 2 5 points****Question 3: Short****5 points**

- (a) State that the price of the coat is 12,000 yen. **1 point**
- (b) State that net financial capital flows from Italy to Japan will increase. **1 point**
- (c) Draw a correctly labeled graph of the foreign exchange market for the Japanese yen. **1 point**



For the second point, the graph must show a rightward shift in the demand curve for yen (or a leftward shift in the supply curve of yen), resulting in an appreciation of the yen. **1 point**

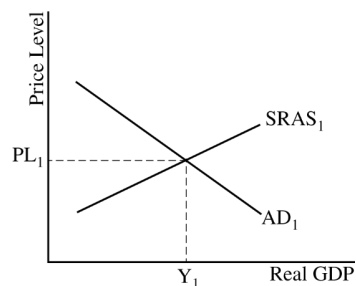
**Total for part (c) 2 points**

- (d) State that Italy's exports will increase and explain that the appreciation of the yen makes Italian goods relatively less expensive than Japanese goods and/or makes Japanese goods relatively more expensive than Italian goods. **1 point**

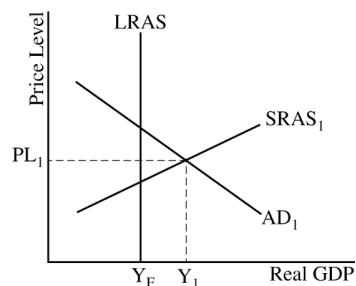
**Total for question 3 5 points**

**Question 1: Long****10 points**

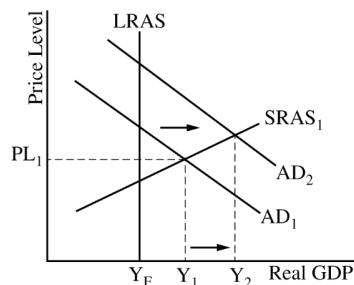
- (a) Draw a correctly labeled aggregate demand–aggregate supply graph that shows  $PL_1$  and  $Y_1$  at the intersection of  $AD_1$  and  $SRAS_1$ . **1 point**



For the second point, the graph must show a vertical  $LRAS$  curve to the left of  $Y_1$  and label the full employment output  $Y_F$ . **1 point**

**Total for part (a) 2 points**

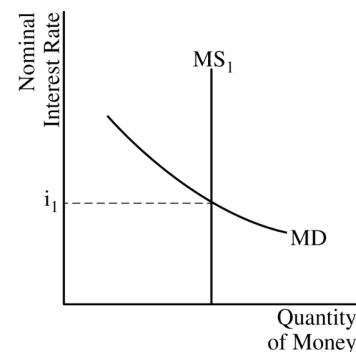
- (b) On the graph from part (a), show the impact of the government's action with a rightward shift of the  $AD$  curve and an increase in short-run equilibrium real output labeled  $Y_2$ . **1 point**



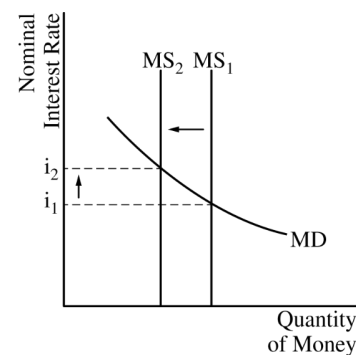
- (c) (i) State that the natural rate of unemployment will not change. **1 point**
- (ii) State that nominal interest rates will increase and explain that this is because the increase in real output will increase the demand for money. **1 point**

**Total for part (c) 2 points**

- (d) State that the central bank should sell bonds. **1 point**
- (e) Draw a correctly labeled graph of the money market. **1 point**



For the second point, the graph must show a leftward shift in the money supply curve, resulting in a higher nominal interest rate. **1 point**

**Total for part (e) 2 points**

- (f) State that Smithland's currency will appreciate and explain that this is because there will be financial capital inflows as foreign investors seek higher returns in Smithland, which will increase the demand for Smithland's currency or decrease the supply of Smithland's currency. **1 point**

- (g) State that Smithland's imports will increase and explain that this is because the appreciation of Smithland's currency means that foreign goods will be relatively less expensive. **1 point**

**Total for question 1 10 points**

**2018**

AP Macroeconomics: 2018

**AP** CollegeBoard

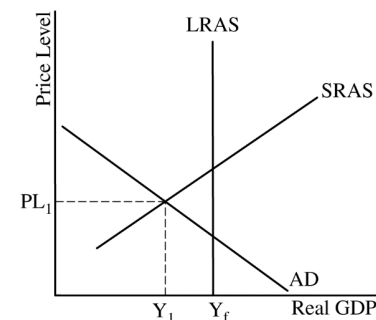
# AP Macroeconomics

## Scoring Guidelines

## 2018 SCORING GUIDELINES

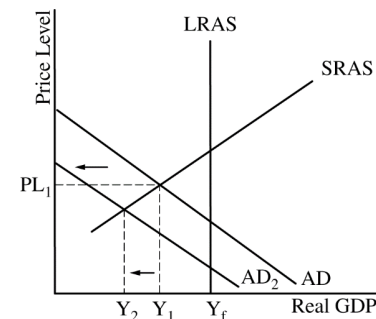
### Question 1

**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  $Y_1$ .

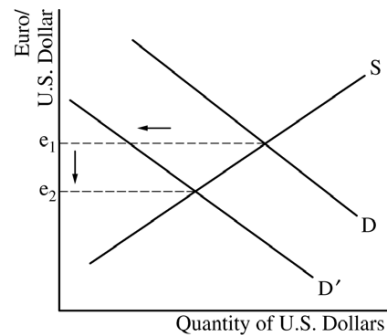


(b) 3 points:

- 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.

# 2018 SCORING GUIDELINES

## 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).

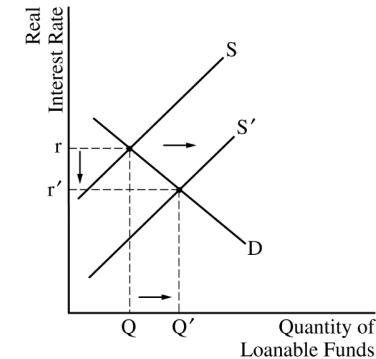
# 2018 SCORING GUIDELINES

## Question 2

5 points (1 + 2 + 2)

(a) 1 point:

- One point is earned for stating that private savings will increase.



(b) 2 points:

- One point is earned for drawing a correctly labeled graph of the loanable funds market showing a downward sloping demand curve and an upward sloping supply curve.
- One point is earned for showing a rightward shift in the supply curve (increased private savings) and for showing a decrease in the equilibrium real interest rate.

(c) 2 points:

- One point is earned for stating that aggregate demand will increase and for explaining that the decrease in the real interest rate will result in an increase in interest-sensitive spending (consumption or investment or net exports).
- One point is earned for stating that potential real gross domestic product (GDP) will increase as a result of an increase in capital formation brought about by the increase in investment spending (or because capital formation increased the long-run aggregate supply).

## 2018 SCORING GUIDELINES

### Question 3

**5 Points (1 + 1 + 1 + 2)**

(a) 1 point:

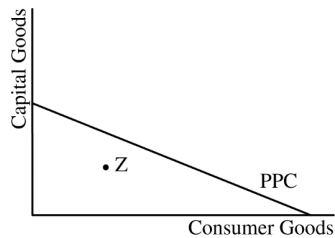
- One point is earned for stating that neither country has a comparative advantage in producing consumer goods and for explaining that the opportunity cost of producing 1 unit of consumer goods is the same for both countries (which is 1/2 a unit of capital goods).

(b) 1 point:

- One point is earned for correctly calculating the unemployment rate as 10 percent ( $20,000/200,000 \times 100 = 10\%$ ).

(c) 1 point:

- One point is earned for correctly calculating the labor force participation rate as 66.67 percent ( $200,000/300,000 \times 100 = 66.67\%$ ).



(d) 2 points:

- One point is earned for drawing a correctly labeled graph of the production possibilities curve (PPC).
- One point is earned for correctly showing point Z below the PPC.

## AP<sup>®</sup> Macroeconomics 2014 Scoring Guidelines

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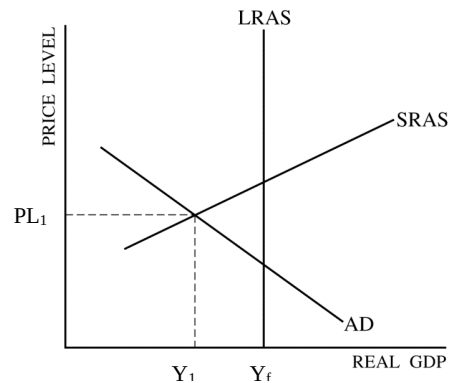
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## 2014 SCORING GUIDELINES

## Question 1

11 Points (2+2+1+2+2+2)



2 points:

- One point is earned for drawing a correctly labeled graph showing an equilibrium with AD, SRAS,  $Y_1$ , and  $PL_1$  labeled.
- One point is earned for drawing a vertical LRAS curve at  $Y_f$  to the right of the intersection of AD and SRAS.

2 points:

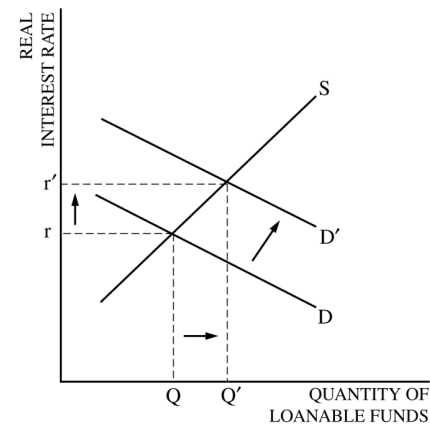
- One point is earned for stating that cyclical unemployment will decrease.
- One point is earned for stating that the natural rate of unemployment will not change.

1 point:

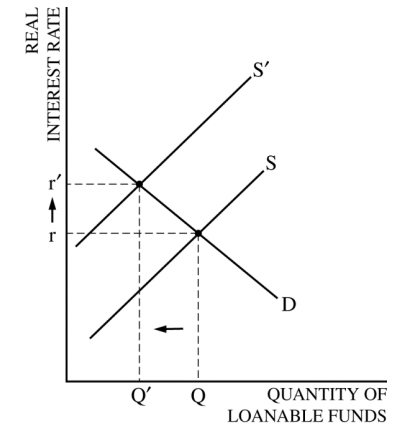
- One point is earned for calculating the maximum change in real GDP:  
Change in GDP =  $(1/0.25) \times \$100 \text{ billion} = \$400 \text{ billion}$ .

## 2014 SCORING GUIDELINES

## Question 1 continued



OR



2 points:

- One point is earned for drawing a correctly labeled loanable funds market graph.
- One point is earned for shifting the demand curve to the right (or shifting the supply curve to the left) and showing an increase in the real interest rate.

2 points:

- One point is earned for stating that the economic growth rate will fall.
- One point is earned for explaining that the higher real interest rate will slow down capital formation.

2 points:

- One point is earned for stating that real gross domestic product will increase.
- One point is earned for explaining that the expansionary effect of the increase in government spending outweighs the contractionary effect of the increase in taxes of the same size. (Or students may explain by calculating the net increase in GDP, \$100 billion, or stating the tax multiplier is smaller than the spending multiplier.)



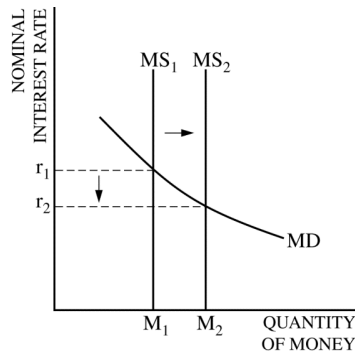
## 2014 SCORING GUIDELINES

## Question 2

6 points (2+2+1+1)

2 points:

- One point is earned for stating that the Federal Reserve will buy government bonds.
- One point is earned for stating that the price of government bonds will increase.



2 points:

- One point is earned for drawing a correctly labeled graph of the money market.
- One point is earned for shifting the money supply curve to the right and showing a decrease in the nominal interest rate.

1 point:

- One point is earned for stating that the Federal Reserve purchase will not initially affect commercial banks' required reserves.

1 point:

- One point is earned for defining the discount rate as the interest rate that the Federal Reserve charges banks for borrowing from its discount window.

## 2014 SCORING GUIDELINES

## Question 3

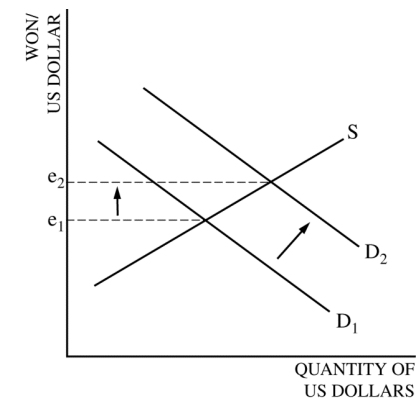
5 points (1+2+2)

1 point:

- One point is earned for stating that United States exports to South Korea will increase.

2 points:

- One point is earned for stating that the United States current account will be in surplus.
- One point is earned for stating that the United States gross domestic product will increase and explaining that higher U.S. exports increase AD (or that production increases to meet the increased export demand from South Korea).



2 points:

- One point is earned for drawing a correctly labeled graph of the foreign exchange market for the U.S. dollar.
- One point is earned for shifting the demand curve for the dollar to the right (and/or shifting the supply curve to the left) and showing an increase in the won price per dollar.