Question 2: Short — 5 points

(a)	Calculate real GDP in Louland in year 2 as 900,000 and show your work. $$\text{Real GDP} = \frac{\text{Nominal GDP}}{\text{GDP Deflator}} \times 100 = \frac{1{,}035{,}000}{115} \times 100 = 900{,}000$$	**1 point**
(b)	State that the demand for money would increase and the nominal interest rate would increase.	**1 point**
(c)	State that the standard of living of the average citizen in Louland decreased from year 1 to year 2 and explain that the real GDP per capita in year 1 was 800 and the real GDP per capita in year 2 was 750.	**1 point**
(d)	State that the inflation rate from year 1 to year 2 was 15%.	**1 point**
(e)	State that real wages decreased and explain that nominal wages increased by less than the inflation rate (10% < 15%).	**1 point**
	Total for question 2	**5 points**

Question 2: Short — 5 points

(a)	Calculate the nominal GDP in Maltrose in year 2 as $210 and show your work. $$\text{Nominal GDP}_{\text{Year 2}} = (\$13 \times 10) + (\$4 \times 20) = \$210$$	**1 point**
(b)	Calculate the GDP deflator in Maltrose in year 2 as 105 and show your work. $$\text{GDP Deflator}_{\text{Year 2}} = \frac{\text{Nominal GDP}_{\text{Year 2}}}{\text{Real GDP}_{\text{Year 2}}} \times 100 = \frac{\$210}{(\$10 \times 10) + (\$5 \times 20)} \times 100 = 105$$	**1 point**
(c)	State that the inflation rate from year 1 to year 2 was 5%.	**1 point**
(d) (i)	State that people living on a fixed income were worse off.	**1 point**
(ii)	State that borrowers with fixed-interest-rate loans were better off because the real value of their debt decreased by more than they expected or because the real interest rate was lower than expected.	**1 point**
	Total for part (d)	**2 points**
	Total for question 2	**5 points**

2019

AP® CollegeBoard

AP® Macroeconomics

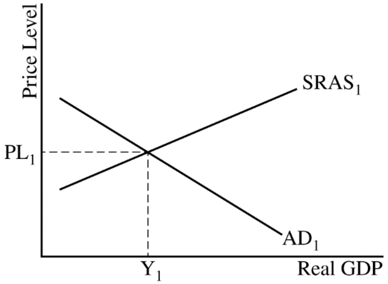
Scoring Guidelines
Set 1

2019 SCORING GUIDELINES

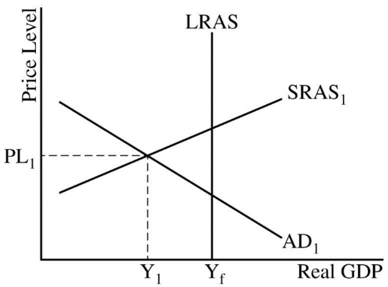
Question 1

10 Points (2 + 2 + 2 + 2 + 2)

(a) 2 points



- One point is earned for drawing a correctly labeled graph showing a downward sloping aggregate demand (AD) curve, an upward sloping short-run aggregate supply (SRAS) curve, the equilibrium output level labeled Y_1, and the equilibrium price level labeled PL_1.



- One point is earned for drawing a correctly labeled vertical long-run aggregate supply (LRAS) curve with full employment output labeled Y_f to the right of the short-run equilibrium output level, Y_1.

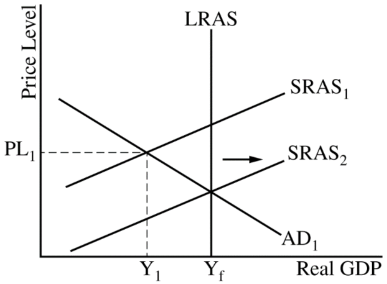
(b) 2 points

- One point is earned for explaining that nominal wages, input prices, or expected inflation will decrease, causing the SRAS curve to shift to the right until real GDP reaches full employment at Y_f.

AP Macroeconomics: 2019 Set 1

2019 SCORING GUIDELINES

Question 1 (continued)



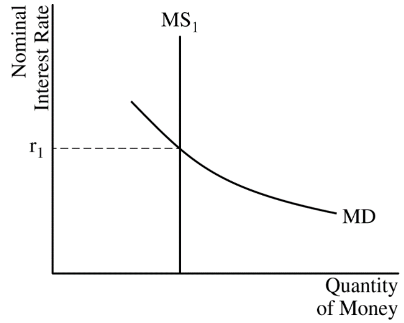
- One point is earned for showing a rightward shift in the SRAS curve intersecting the AD curve and LRAS curve at Y_f.

(c) 2 points

- One point is earned for correctly calculating the minimum change in government spending required to change aggregate demand by the amount of the output gap as an increase of \$8 billion ($= \frac{\$40\text{ billion}}{5}$).

- One point is earned for correctly calculating the minimum change in taxes required to change aggregate demand by the amount of the output gap as a decrease of \$10 billion ($= \frac{\$40\text{ billion}}{-4}$).

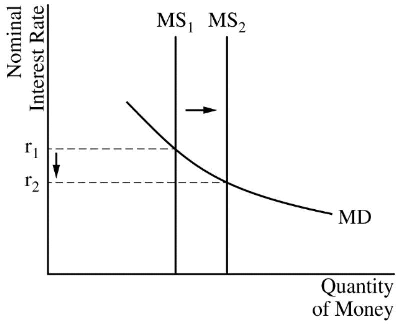
(d) 2 points



- One point is earned for drawing a correctly labeled graph of the money market.

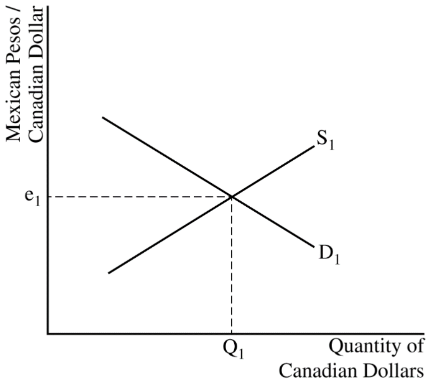
2019 SCORING GUIDELINES

Question 1 (continued)



- One point is earned for showing a rightward shift in the money supply curve, resulting in a lower nominal interest rate.

(e) 2 points

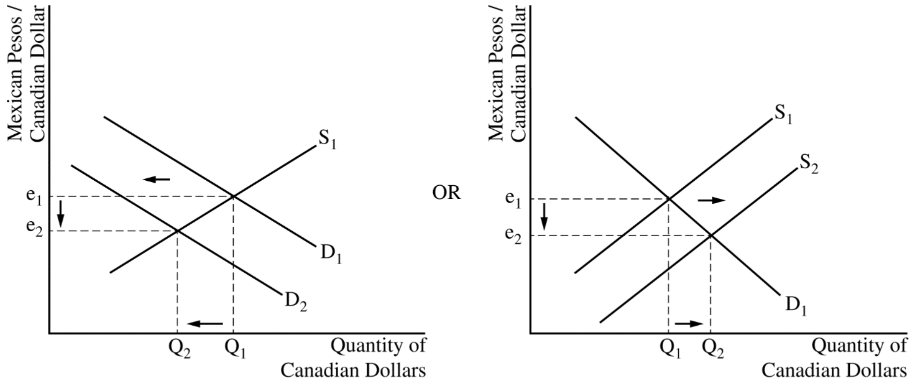


- One point is earned for drawing a correctly labeled graph of the foreign exchange market for the Canadian dollar.

AP Macroeconomics: **2019 Set 1**

2019 SCORING GUIDELINES

Question 1 (continued)



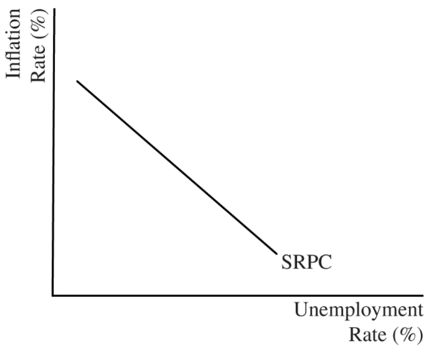
- One point is earned for showing a leftward shift of the demand curve for Canadian dollars (or a rightward shift of the supply curve of Canadian dollars) and for showing that the Canadian dollar will depreciate against the Mexican peso.

2019 SCORING GUIDELINES

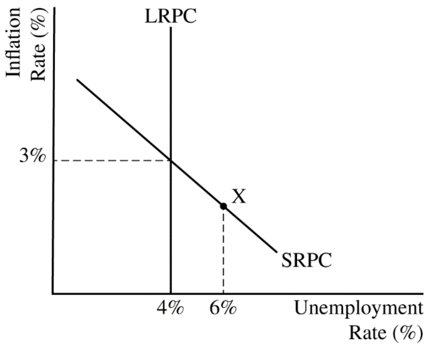
Question 2

5 Points (2 + 1 + 1 + 1)

(a) 2 points



- One point is earned for drawing a correctly labeled graph showing the short-run Phillips curve (SRPC).



- One point is earned for drawing the long-run Phillips curve (LRPC) showing the short-run equilibrium, labeled as point X, on the SRPC to the right of the LRPC, and for plotting the numbers in the correct places on the graph.

(b) 1 point

- One point is earned for stating that the actual inflation rate is less than the expected inflation rate.

2019 SCORING GUIDELINES

Question 2 (continued)

(c) 1 point

- One point is earned for stating that lenders will be better off and for explaining the real value of the loans that will be repaid will be higher than expected **OR** for explaining the relationship between the nominal and the real interest rates using the Fisher equation.

(d) 1 point

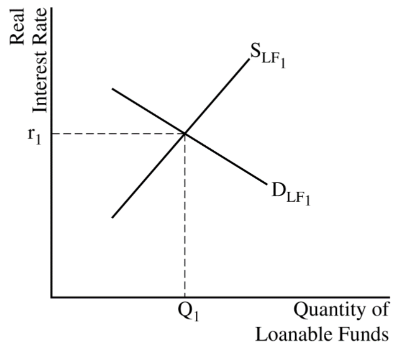
- One point is earned for stating that the natural rate of unemployment will not change in the long run.

2019 SCORING GUIDELINES

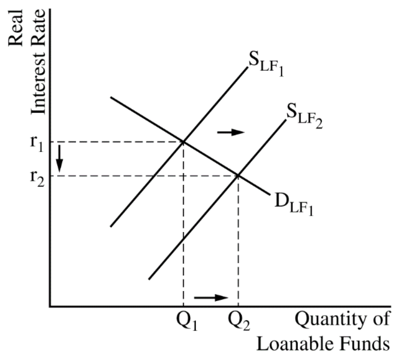
Question 3

5 Points (2 + 1 + 2)

(a) 2 points



- One point is earned for drawing a correctly labeled graph of the loanable funds market and identifying the equilibrium real interest rate and quantity of loanable funds.



- One point is earned for showing a rightward shift of the supply curve for loanable funds and for showing a lower equilibrium real interest rate.

(b) 1 point

- One point is earned for stating that Econland's purchases of foreign assets will increase and for explaining that Econland's investors will seek higher returns in other countries, which increases Econland's demand for foreign assets.

2019 SCORING GUIDELINES

Question 3 (continued)

(c) 2 points

- One point is earned for stating that Econland's currency will depreciate.
- One point is earned for stating that Econland's central bank would buy its currency in the foreign exchange market.