## AP ${ }^{\circledR}$ MACROECONOMICS <br> 2011 SCORING GUIDELINES

## Question 1

11 Points $(2+2+1+4+2)$

(a) 2 points:

- One point is earned for a correctly labeled graph of the short-run Phillips curve (SRPC).
- One point is earned for showing a vertical long-run Phillips curve (LRPC) and the point A to the right of the LRPC on the SRPC.

(b) 2 points:
- One point is earned for a correctly labeled graph of $\mathrm{AD} / \mathrm{AS}$ showing the equilibrium output, $\mathrm{Y}_{\mathrm{e}}$, and price level, $\mathrm{PL}_{\mathrm{e}}$.
- One point is earned for showing $\mathrm{Y}_{\mathrm{f}}$ to the right of $\mathrm{Y}_{\mathrm{e}}$
(c) 1 point:
- One point is earned for showing a leftward shift of the AD curve and indicating $\mathrm{Y}_{2}$ and $\mathrm{PL}_{2}$.


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## Question 1 (continued)


(d) 4 points:

- One point is earned for stating that the Federal Reserve should buy bonds.
- One point is earned for a correctly labeled graph of the money market.
- One point is earned for showing a rightward shift of the money supply curve, resulting in a lower nominal interest rate.
- One point is earned for concluding that the price level will increase because the Federal Reserve action increases interest-sensitive spending (e.g., investment and consumption) and aggregate demand.
(e) 2 points:
- One point is earned for stating that the short-run aggregate supply will increase because wages and other input prices will decrease.
- One point is earned for stating that the natural rate of unemployment remains unchanged.

Write in the box the number of the question you are answering on this page as it is designated in the exam.


(D) (i). The Federal Reserve should buy bonds.
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$\qquad$
$\qquad$
$\qquad$ on this page as it is designated in the exam.

iii) Because the interest rate falling makes it easier to borrow money, more people will borrow many to spend which will raise consumption. The rise in consumption will boost Agroegate Demand, raising the price level.
E)(i) In the long run, the short run aggregate supply will increase since the recession lowers the price level. Eventually, workers will ask for a lower wife allowing employers to hire more and bringing SRAS back to equilibrium.
(ii) In the lory inn, the natural rate of unemployment will remain uncharged.

Write in the box the number of the question you are answering
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(1) (look at part b)
(d) (ii. The federal government should by government securities (bonds) as this will increase the supply of money. lower interest rates, and promote economic growth.


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Write in the box the number of the question you are answering $\mid B$ on this page as it is designated in the exam.
(iii). Using Easy-money policy by buying government securities will make the price level increase as the at pt will also increase and aggregate demand will increase. Expanding the supply of money will increase many components of aggregate demand, including consumption and investment spending.
(e) (i). In the long run, aggregate supply will eventually increase. This is explained by the Classical theory of economic that a govemment shows have no intervention in economics and that economics will eventually fix itself.
(ii). In the long ron, with an increase in outat, ar the economy fixes itself, aggregate demand will increasing, showing economic Growth. This will also cause price level to increase ar the economy moves towards inflation, which will lower the natural rate of unemployment in the long run.

Write in the box the number of the question you are answering on this page as it is designated in the exam.


(c) See graph.
(d) (i) The Federal Reserve should implement easy or expansionary monetary policy.

| (ii) |  | ms | $\mathrm{ms}_{1}$ |  | ms , |
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(iii) Price level will increase due to inflation and an increased money supply.
(e) (i) Aggregate supply will decrease because it is firite/scarce.
(ii) The natural rate of unemployment will increase.
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# AP ${ }^{\circledR}$ MACROECONOMICS <br> 2011 SCORING COMMENTARY 

## Question 1

## Overview

Part (a) of this question tested students' ability to model the relationship between inflation and unemployment using short-run and long-run Phillips curves. Parts (b) and (c) tested for understanding of the standard model of aggregate demand and aggregate supply. Part (d) gauged students' understanding of monetary policy and the money market graph. Part (e) established whether students understood the economy's self-correction mechanism.

## Sample: 1A

Score: 11

The student answers all parts of the question correctly and so earned all 11 points.

## Sample: 1B

Score: 7

The student received 2 points in part (b) for a correctly labeled AS/AD graph showing the equilibrium price level and output, and for showing the equilibrium output below full employment. The student earned 1 point in part (c) for shifting the aggregate demand curve to the left and indicating the resulting equilibrium price level and output. The student received 4 points in part (d) for stating that the Federal Reserve should buy bonds, drawing a correctly labeled money market graph, showing that an increase in the supply of money decreases the equilibrium interest rate, and explaining that the lower interest rate will increase aggregate demand and therefore raise the price level.

## Sample: 1C <br> Score: 2

The student received 1 point in part (a) for a correctly labeled short-run Phillips curve and 1 point in part (b) for a correctly labeled AS/AD graph showing the equilibrium output and price level.

