MACROECONOMICS

Section II

Planning Time—10 minutes

Writing Time—50 minutes

Directions: You have fifty 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.

1. Assume that the economy is operating below the full-employment level of output and that the government's budget is balanced.

   (a) Using a correctly labeled aggregate demand and aggregate supply graph, show how an increase in government spending will affect each of the following in the short run.

   (i) Real output

   (ii) Price level

   (b) Explain how this increase in government spending will affect each of the following in the short run.

   (i) Real interest rates

   (ii) Investment

   Now assume that instead of increasing government spending, the government decreases corporate-profits taxes.

   (c) Using a correctly labeled aggregate demand and aggregate supply graph, show and explain how this decrease in corporate-profits taxes will affect each of the following.

   (i) Aggregate demand

   (ii) Long-run aggregate supply

   (iii) Real output

   (iv) Price level

   (d) Assume that this country produces two goods, X and Y. Draw a correctly labeled production possibilities curve for this economy. Now show on the graph how this decrease in corporate-profits taxes will affect this economy's production possibilities curve.

2. A movement toward a unified monetary policy within the European Union has led to an increase in real interest rates in member countries, but not in the United States. Explain how this increase in real interest rates will affect each of the following.

   (a) Purchases of United States financial assets by foreigners
   (b) The international value of the United States dollar
   (c) United States exports
   (d) United States imports

3. Janet Smith deposits $1,000 of her cash holdings in her checking account at First Federal Bank. The reserve requirement is 20 percent and the bank has no excess reserves.

   (a) What is the immediate effect of her deposit on the money supply? Explain why.
   (b) What is the maximum amount of money First Federal can initially loan out? Explain how you determined this amount.
   (c) What is the maximum amount of money the entire banking system can create? Explain how you determined this amount.
   (d) Give one reason why the money supply may not increase by the amount you identified in (c).

END OF EXAMINATION

Question 1

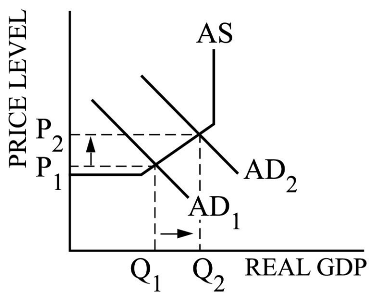
Correct Answer:

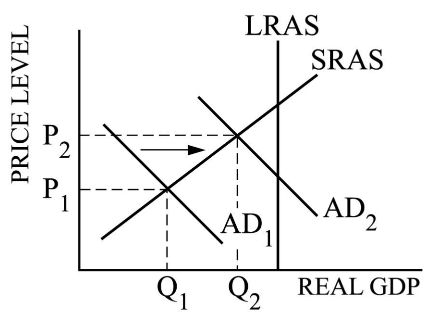
The increase in government spending will shift out (increase) the aggregate demand curve. Since the economy is below full employment, there will be an increase in real output and an increase in the price level (assuming an upward-sloping aggregate supply curve). The increase in government spending will generate an increase in demand for loanable funds, and the increase in income will increase the demand for money. Thus, interest rates will increase, and interest-sensitive expenditures, such as investment, will fall.

A reduction in corporate profits-taxes will lead to more investment and an outward shift in the aggregate demand curve. Greater investment leads to a larger capital stock and an outward shift in the aggregate supply curve. As a result, real output increases. The impact on the price level is indeterminate since the shifts have counteracting effects. With a greater capital stock, the production possibilities frontier will shift out.

2+2+5+1=10 points

a) Real output and the price level increase (graph needed). From the student's initial level of real output or GDP, the student must show an opportunity for GDP to increase (i.e., not have a vertical AS curve).





1 point for properly labeled graph with an increase in AD

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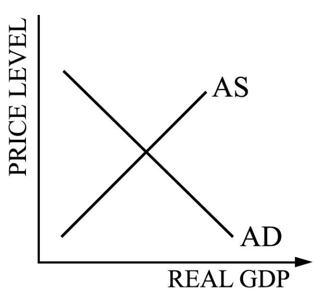
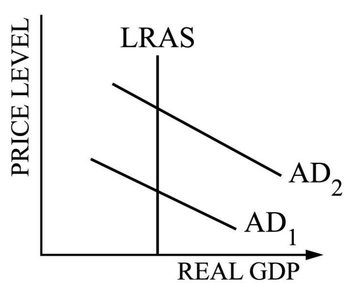




1 point for P↑ *and* Q↑ (or results consistent with graph) All or nothing for the P and Q point. Price does not have to increase if student draws both AD curves in the horizontal range of AS. No point if only the AS curve shifts.

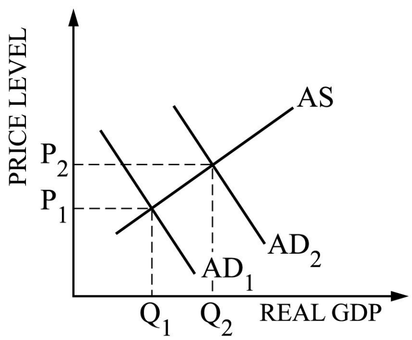
Question 1 (cont.)

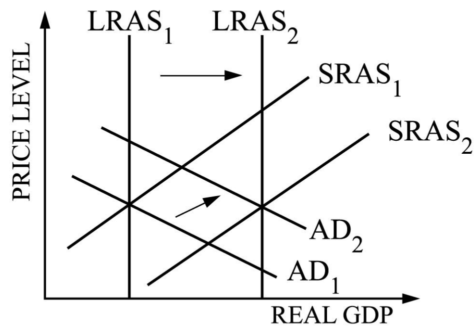
b) **1 point** for interest rates up as government borrows more money in the market for loanable funds or the demand for money increases with a higher GDP

(It is acceptable, of course, to give one point to the student who speaks to the possible ambiguity of the situation given that nominal rates increase and the price level increases.)

1 point for investment falls — an interest-sensitive expenditure
(a point for a correct link of interest change in b (i) to change in investment)

c) **1 point** for graph with AD increase *and* explanation that investment spending increases or shareholder wealth/income increase causes a spending increase





1 point for shifting out the AS curve

1 point for explaining AS increase, i.e., more capital or lower production costs

1 point for real output increases (may be linked to a single shift in either AD or AS)

1 point for the price level change is *indeterminate* — must use both AD and AS shifts to earn the point

d) **1 point** for PPF shifts away from origin on a graph—must have *two* PPF curves.