MACROECONOMICS
Section II
Planning Time—10 minutes
**Writing Time—50 minutes**

Directions: You have 50 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. Use a pen with black or dark blue ink.

1. Assume the United States economy is operating at full-employment output and the government has a balanced budget. A drop in consumer confidence reduces consumption spending, causing the economy to enter into a recession.

    (a) Using a correctly labeled graph of the short-run Phillips curve, show the effect of the decrease in consumption spending. Label the initial position "A" and the new position "B".

    (b) What is the impact of the recession on the federal budget? Explain.

    (c) Assume that current real gross domestic product falls short of full-employment output by $500 billion and the marginal propensity to consume is 0.8.

       (i) Calculate the minimum increase in government spending that could bring about full employment.

       (ii) Assume that instead of increasing government spending, the government decides to reduce personal income taxes. Will the reduction in personal income taxes required to achieve full employment be larger than or smaller than the government spending change you calculated in part (c)(i) ? Explain why.

    (d) Using a correctly labeled graph of the loanable funds market, show the impact of the increased government spending on the real interest rate in the economy.

    (e) How will the real interest rate change in part (d) affect the growth rate of the United States economy? Explain.

2. Balance of payments accounts record all of a country's international transactions during a year.

    (a) Two major subaccounts in the balance of payments accounts are the current account and the capital account. In which of these subaccounts will each of the following transactions be recorded?

       (i) A United States resident buys chocolate from Belgium.

       (ii) A United States manufacturer buys computer equipment from Japan.

    (b) How would an increase in the real income in the United States affect the United States current account balance? Explain.

    (c) Using a correctly labeled graph of the foreign exchange market for the United States dollar, show how an increase in United States firms' direct investment in India will affect the value of the United States dollar relative to the Indian currency (the rupee).

GO ON TO THE NEXT PAGE.

Question 1

11 points (2 + 2 + 3 + 2 + 2)
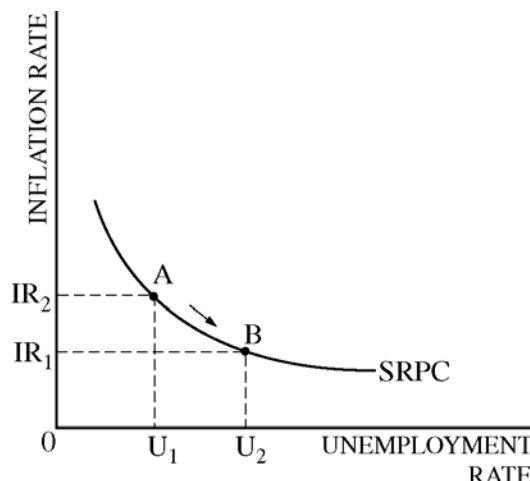
(a) 2 points:
- One point is earned for a correctly labeled graph of the short-run Phillips curve (SRPC).
- One point is earned for showing on the SRPC the initial position "A" and the new position "B".
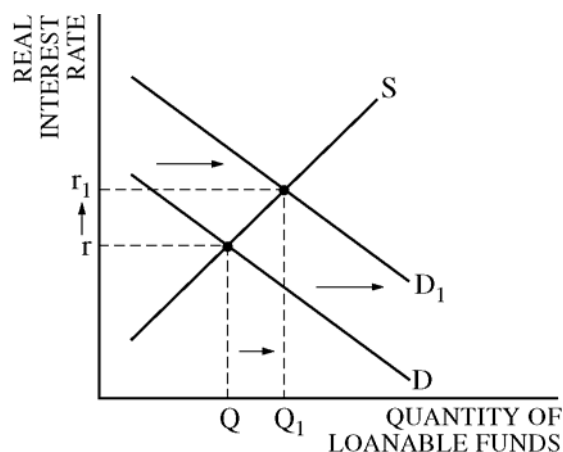
(b) 2 points:
- One point is earned for stating that the federal budget will be in a deficit.
- One point is earned for explaining that government spending (or transfer payments) will increase and/or tax revenues will fall due to the recession.

(c) 3 points:
- One point is earned for correctly calculating the increase in government purchases:
Change in G = Recessionary gap/Multiplier = ($500/5) = $100.
- One point is earned for stating that a larger reduction in personal income taxes is required than the $100 billion increase in government spending.
- One point is earned for explaining that households do not spend all of the initial increase in disposable income caused by a tax reduction, or that the tax multiplier is smaller than the government spending multiplier.

(d) 2 points:
- One point is earned for a correctly labeled graph of the loanable funds market.
- One point is earned for showing a rightward shift of the demand curve and showing a higher real interest rate. (A leftward shift of the supply curve showing a higher interest rate is also accepted.)

(e) 2 points:
- One point is earned for stating that the growth rate will fall.
- One point is earned for explaining that investment spending decreases and, as a result, capital formation will decrease.